Field Day 2019

Memorial Field

June 22 -23

Perfect weather, a great set-up, so-so operating band conditions and the camaraderie of friends made for a most wonderful FLARC Field Day. A unique distraction in the "wetdown" of a new Fair Lawn fire engine adjacent to our site made for a noisey Saturday but could not take away from the fun that is Field Day.

Setup

Fred W2AAB, Norm, and Nomar NP4H take a break installing antennas

GOTA Solar Panels welcome a sunny day!!!

Brad KM2C and Matt W2FTP in the SSB trailer

The GOTA Station

The SSB tent courtesy of Ridgewood OEM

The CW Tent

Faces In The Crowd

Randy WU2S, Colin Knight and Freeholder David Ganz

A pre-dinner confab on the pavilion

NJ Assemblywoman Lisa Swain with a FLARC VIP contingent

L to R: Dave NK2Q, Dave N1RSN , Ed WX2R and Michelle W3MVP from the ARRL

The SSB tent heavily into the action.

Ryan Savaria/OEM Ridgewood, Gene WO2W, and Gene Conners/ American Red Cross at the SSB tent.

Operating

Brian KD2KLN

Matt W2FTP

John W2JLH

Fred W2AAB

Stan KC2K and Steve KA2YRA

Guest Operator KC2RG

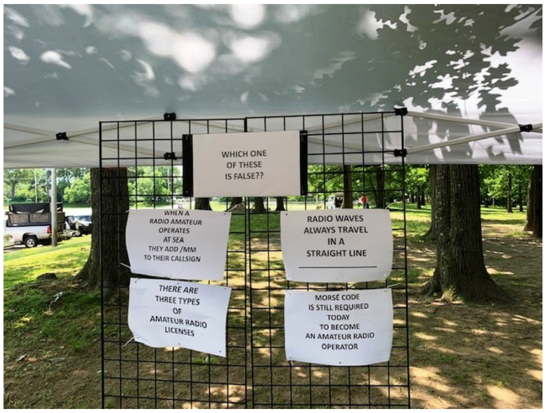
Education

Antenna building

John W2JLH and Van W2DLT work with a guest at GOTA

It's all concentration at the GOTA station

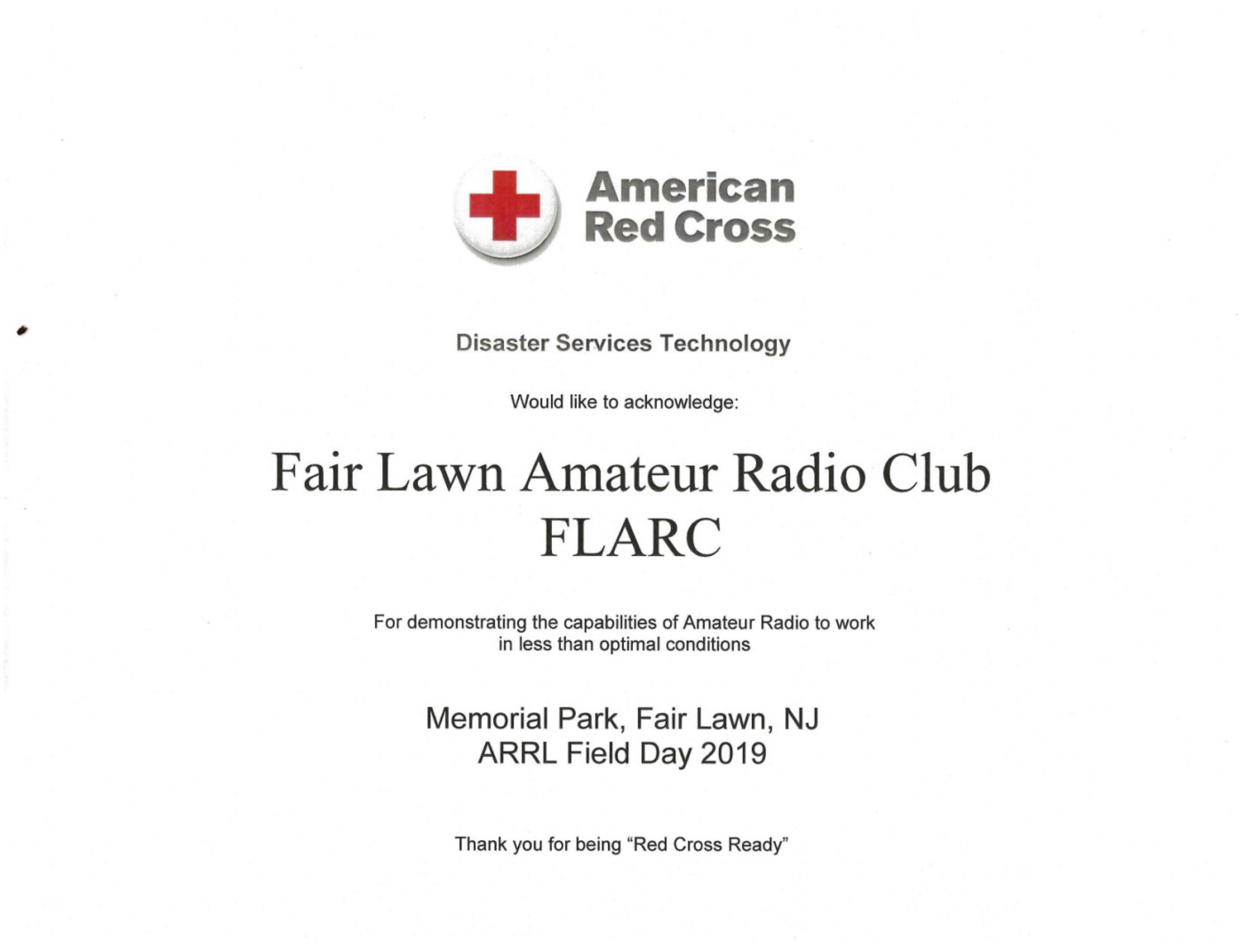
More antenna building with students and visitors


WHICH ONE OF THESE IS FALSE??
WHEN A RADIO AMATEUR OPERATES AT SEA THEY ADD /MM TO THEIR CALLSIGN
RADIO WAVES ALWAYS TRAVEL IN A STRAIGHT LINE
THERE ARE THREE TYPES OF AMATEUR RADIO LICENSES
MORSE CODE IS STILL REQUIRED TODAY TO BECOME AN AMATEUR RADIO OPERATOR

A test quiz in the Publicity tent...so which one is it??

Skip KD2BRV stands guard at the Publicity tent

Recognition



American Red Cross

Disaster Services Technology

Would like to acknowledge:

Fair Lawn Amateur Radio Club
FLARC

For demonstrating the capabilities of Amateur Radio to work
in less than optimal conditions

Memorial Park, Fair Lawn, NJ
ARRL Field Day 2019

Thank you for being "Red Cross Ready"

A certificate of recognition to FLARC for its work in emergency preparedness

Results

This year's Field Day in many ways was the best ever. Solid preparation, the use of new club equipment and a uneventful setup made for a great weekend..

Field Day is always about emergency preparedness. Yes there is a "contest" attached to it but the contest is about honing operating skills needed during emergency conditions.

Food, members and friends capped the weekend with a gaggle of visitors including OEM and representatives from county and federal government with an ARRL presence at both the headquarters level.

So...how did we do?

- *A slight decrease in member participation -- 36 on the log this year down from 49 last year; 47 in 2017 and 43 in 2016*
- 44 registered visitors and more who "snuck by" the visitor log
- Faster and more fluid overall field setup time -- the real metric of Field Day
- Four media mentions--Community News, Tapinfo(2) and Fair Lawn TV.
- Recognition by Red Cross for our preparedness, which garnered us additional bonus points.

The afterglow of a good Field Day is always a marvel to behold.

This year's was no exception-- positive comments about our pre- planning and a record-fast setup-- even with tough band conditions it was just good fun.

This club has been fortunate in its recent growth and its influence. Consider that years ago we were considerably smaller in membership and chose not to send in a score.

*This year **the final score was 4,504 from 1,464 contacts, plus 1,590 bonus points for a total of 6,094.** (Note: Final total subject to change)*

A thanks to all who submitted photos and comments to help make the FD Resonator a must-read: Glenn KB2MDR, George W3EH, Don N2PRT, Karl W2KBF, Nomar NP4H, Jim W2JC and Ed WX2R. Who did I miss??

Lee KD2DRS, daughter Renee, Glenn KB2MDR and Steve KA2YRA

Dinner on the pavilion

Lots of eyeball QSOs and Saturday went on.

The Resonator

Official Newsletter of The Fair Lawn (NJ) Amateur Radio Club

Volume 4, Number 7 **www.FairLawnARC.org** **July 2019**

From The President:

To FLARC members:

Thank you to all who helped and attended our 2019 ARRL Field Day. Only 11 months to go to plan 2020! Each year we learn more and will continue to improve our stations and overall event. We have had great participation in the 2M beam building sessions run by Karl W2KBF and Randy WU2S. Please contact them if you are interested in building a 2M beam. Contact club leadership If there are other kits or builds you would be interested in.

Thank you again to Judith KC2LTM and Fred W2ABE for their donation of the FlexRadio $300 certificate. The club was able to purchase a desktop microphone and a FlexControl knob for the new HF radios.

Brad – KM2C
FLARC President

INSIDE THIS ISSUE

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45 **July Net Controls**

Member Profile

NAME: **Roger Ringers** CALL**: K2RRB**

What do you do/what did you do for a living?

My career has been Electronics and HVAC.

I started by graduating from the Paterson Technical and Vocational H.S. Electronics course in 1953. I was also working part time in Magnetic Recording Co. repairing tape and wire recorders. Later I worked part time for Town and Country TV, radio and stereo repairs. Also worked at Hosica Labs fixing test equipment.

After which I worked for Federal Telephone & Radio as a First Class Transmitter Wireman. There I met two “Elmers” who saw my interest in HAM radio. I got my first “ticket” in March 1956 as a Technician K2RRB. Yes, that is my original call.

In 1956 I joined the Army Signal Corp and went to Ft. Monmouth for Microwave Service training. Then it was off to Japan for two years servicing Microwave and VHF equipment from Tokyo to Tsushima Island.

After discharge I worked for Kearfott, Fairchild Dumont and Monsanto. At Kearfott I was an Engineering Technician servicing Military Guidance Systems. At Fairchild Dumont I was the Instrument Service Department Lead Man -- repairing, servicing Oscilloscopes, Pulse Generators and Engine Analyzers. During this time period I advanced my HAM License to General (May/1970). I also worked at Isomet with Laser delay lines in 1971.

Then I received my Advanced license (Feb/1978) and also got a Second Class Radio Telephone License (5/1968). Lastly I decided to go for Extra Class (Nov/2016). I retired from Plessey Electronics in Jan. 2000.

Continued on page 4.

The Club Fair Lawn ARC is the fastest growing ham club around, with five operating positions in a permanent clubhouse. Visitors and guests are always welcome. The club is open every Friday night from NLT 6:30 PM. Business meetings are the first Friday of the month at 7:30PM.

2018 Officers, Committees and Assignments

President	**Brad Kerber**	**KM2C**
Vice President	**Lowell Van't Slot**	**W2DLT**
Treasurer	**Al Rasmussen**	**WA2OWL**
Secretary	**Randy Smith**	**WU2S**
Trustee	**Skip Barker**	**KD2BRV**
Trustee	**Don Cassarini**	**N2PRT**
Field Day	**Steve Wraga**	**WA2BYX**
Member Services	**Judith Shaw**	**KC2LTM**
Publicity	**Ed Efchak**	**WX2R**
Publicity	**Gene Ottenheimer**	**WO2W**
Publicity	**Susan Frank**	**W6SKT**
Program	**Lowell Vant Slot**	**W2DLT**
Publicity	**Karl Frank**	**W2KBF**
Publicity	**Brad Kerber *(ex officio)***	**KM2C**
Social Media	**Dave Marotti**	**NK2Q**
Video/YouTube	**Thom Guida**	**W2NZ**
VE Liaison	**Gene Ottenheimer**	**WO2W**
VE Liaison	**Pete Senesi**	**KD2BMX**
Education	**Gordon Beattie**	**W2TTT**
Education	**Randy Smith**	**WU2S**
Education	**John L. Howard**	**K2JLH**
Education	**Fred Wawra**	**W2ABE**
History	**Fred Belghaus**	**W2AAB**
Health and Welfare	**Judith Shaw**	**KC2LTM**
Photographer	**Don Cassarini**	**N2PRT**
W2NPT Trustee	**Paul Cornett**	**W2IP**
Technical	**Paul Cornett**	**W2IP**
Technical	**Randy Smith**	**WU2S**
Technical	**Fred Wawra**	**W2ABE**
RACES Director	**Dave Gotlib**	**KD2MOB**
RACES Liaison	**Steve Wraga**	**WA2BYX**
Newsletter Editor	**Ed Efchak**	**WX2R**
FL Town Liaison	**Gene Ottenheimer**	**WO2W**
Net Scheduler	**Brian Cirulnick**	**KD2KLN**
Quartermaster	**Brian Cirulnick**	**KD2KLN**

Fair Lawn RACES/ARES Corner

Summer is here and the beginning of summer coincides with the ARRL's Field Day (the 4th full weekend of June)!! Members of Fair Lawn-ARES were present at the same Field Day location as the Fair Lawn Amateur Radio Club (FLARC) at Memorial Park on June 22nd and 23rd. Randy WU2S and Karl W2KBF assisted FL-ARES members and FLARC members during Filed Day in building "tape measure" antennas for radios. The project was a huge success and I would like to thank Randy and Karl for their dedication and bringing their know how to the FL-ARES membership.

Fireworks night took place on Monday, July 1st. This was the first year FL-ARES volunteered along side the FLARC for the Fair Lawn Fireworks Night and I would like to thank those members who volunteered.

ARES through the ARRL is undergoing a 21st century makeover - the timing can't be any better. Please see the ARRL-ARES article linked below.

New ARES plan aligns ARES with the needs of Served Agencies:

http://www.arrl.org/news/new-plan-aligns-ares-with-the-needs-of-served-agencies

Please sign up for various nets and activities taking place at the following email address:

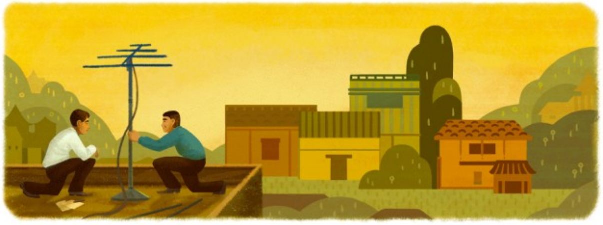
https://arrl.volunteerhub.com/lp/nnj

The FL-ARES KB2FLA Net takes place every Wednesday at 7:00 PM on the FLARC Repeater. However, one Net per month is replaced with a video learning session provided by Randy WU2S. This month, we may have a video session on the the 3rd Wednesday - July 17th, in place of the FL-ARES Net. Details regarding the video session will be provided in an upcoming email to our membership. Please join us every Wednesday for any updates, messages or activities which may take place. FL-ARES would like to thank the FLARC for the use of its repeater.

Continued on page 17.

MASTER EVENT CALENDAR

July 14, 2019	Vanfest IV at W2DLT Lords Valley PA (after Sussex hamfest)
July 19, 2019	Dr. Alan Katz K2UYH "Getting Started With EME" (Senior Center)
July 27, 2019	Kids Day in Elizabeth With Tri-County ARC
August 16, 2019	FLARC Vintage Night II (location TBD)
September 20, 2019	Tim Dufy K3LR "An Inside Look At A Superstation" (Senior Center)
October 18, 2019	TBD
October 20, 2019	Fair Lawn Street Fair (River Road)
November 15, 2019	George Sabbi KB2GJG "SKYWARN For Today"
November 29, 2019	FLARC AUCTION
December 6, 2019	FLARC Annual Meeting and Holiday Party
December 13, 2019	Ria Jairam N2RJ "An Update On The ARRL Hudson Division"**
January 17, 2020	Florencia Pierri KD2PHZ "The First Mass Audience Radio Broadcast"
February 21, 2020	Ed Efchak WX2R "The 2020 FLARC Member Survey
	** 2nd Friday of month



Hidetsugu Yagi's 130th Birthday Google Doodle

Follow FLARC ON THE WEB

Facebook:	http://facebook.FairLawnARC.org
Twitter:	@FairLawnARC
Blog:	http://blog.FairLawnARC.org
Youtube:	http://youtube.FairLawnARC.org
Website:	http://FairLawnARC.org

FLARC VEC Exams

Our next test sessions are scheduled for **Saturday, July 13th** beginning at 09:00 at the Community Center. No advanced registration is required but always appreciated. The fee is $15.00 (cash or check).

Please bring positive identification (license, passport, etc.), your original license and a copy, original CSCE and a copy (if credit is needed).

The full exam schedule is on the club calendar at the FairLawnARC.org website. For further information contact VE-Liason@FairLawnARC.org.

Please refer also to the "License Exams" link
on the main website--

http://testing.FairLawnARC.org

We appreciate your support of the Fair Lawn Amateur Radio Club!

This is your Club! Be part of it!

Member Profile (Continued)

I have had training in HVAC for Thermotron Low temp chambers, Carrier & Trane A/C and refrigeration, Reciprocating, Centrifugal and Absorption Systems. Pneumatic Control Systems by Johnson Controls, Honeywell and Carrier. Also Basics from Lincoln Tech

How did you get interested in ham radio?

When I was very young we used to visit my Aunt Mary who had an American Bosch Radio / short wave receiver. I used to listen to broadcasts all over the world and wonder how this could be. I was interested and thought I would like to be to do this someday. I've been playing with electricity since I was about 12 years old and was interested in electronics.

What parts of the hobby most interest you?

Lately it's been FT8. Since around 8 months ago I started with the help from Bennett KO2OK. I have received the ARRL WAS FT8 and have about 72 confirmed countries so far. All on 20 meters.

What does belonging to FLARC mean to you?
How do you/can you better contribute to the club?

Belonging to FLARC is the best thing that happened to me. I am active as a VE and really enjoy helping the club get new members. Talking to new HAMs is great. The club has a lot to offer and all the members are very friendly and nice to work with. The club house is really "top of the line"!

Continued on next page.

Please Note: Operating W2NPT

Starting in January 2019 club trustees will have sign-in sheets for all operating positions. There is a clipboard at Operating Position #1, #2 (digital) and #4 with a form on which to sign up for half-hour time slots. No longer first come-first served, in fairness to all who want to use our club equipment and the new antennas. More details to follow.

Get Direct With FLARC!

Here is a direct link to specific club info: just a click away!

http://apparel.FairLawnARC.org
http://auction.FairLawnARC.org
http://blog.FairLawnARC.org
http://calendar.FairLawnARC.org
http://events.FairLawnARC.org
http://exams.FairLawnARC.org
http://facebook.FairLawnARC.org
http://testing.FairLawnARC.org
http://news.FairLawnARC.org
http://swap.FairLawnARC.org
http://tech.FairLawnARC.org
http://youtube.FairLawnARC.org

NEW !

https://groups.io/g/FairLawnARC

FAIR LAWN N J AMATEUR RADIO CLUB

June 2019 Blog Traffic

Wow did we get blitzed again this month.
Here is the data:

	June 2019	June 2018	Change
Views	458	825	-44%
Visitors	211	524	-59%
Posts	8	6	+33%

There is new content nearly every day so it's really worth the look to both FairLawnARC.org and the blog.

http://blog.FairLawnARC.org

Member Profile, continued

What should be the club's priorities in the next year?

The club is running out of room. Maybe some sort of agreement can be made. At times the VE sessions or regular club social time is very cramped and crowded in the rooms. Parking can also be a problem.

What else can you tell the club about yourself and/or ham radio?

I have been a Ham now for 63 years and never regretted a day. This in my opinion is the best hobby and there is so much to learn and new things are constantly coming into the field of communications.

What other ham related clubs or organizations do you belong to?

FLARC is the only one. I had belonged to two others but I dropped out.

Roger K2RBB at his shack

Congratulations!

Pete (KD2BMX) reports the results of the April 13, 2019 FLARC VEC Amateur Radio Exam Sessions:

Total Number of Candidates served: 2
Congrats to 2 passes!!

Name	Call	License Earned
Todd Varjian	AC2ZA	Technician
John Blake	KD2RXX	Technician

Club Apparel -- Get Them While They're RED!

Club apparel is always in vogue. Red is always in and your club friends all have them... you *want* a shirt or jacket for the next FLARC event!

Don't forget.... they're easy to order.
Go to www.hamthreads.com
or visit http://apparel.FairLawnARC.org

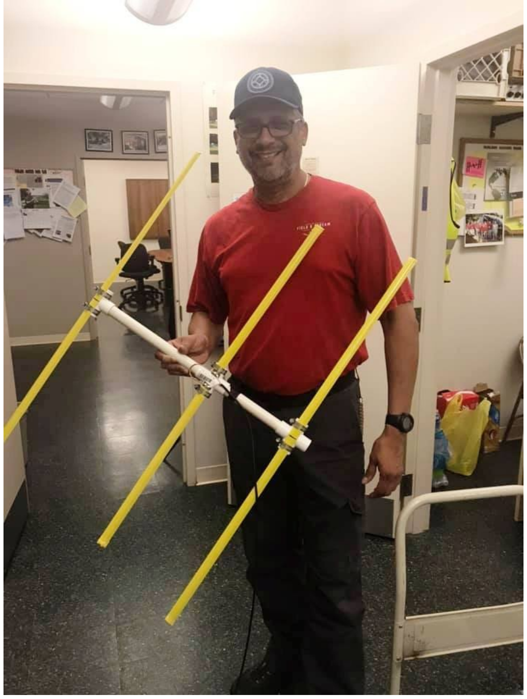
to **check out the item selection that is posted on the FLARC website (with pictures and prices)**. Order the shirts or other items you want with either the regular FLARC logo or the still-cool 60th anniversary logo. Note: **RED** is the primary and preferred club standard shirt color**.**

Skip KD2BRV shows off his new jacket while Judith KC2LTM shows off the long-sleeve FLARC shirt!

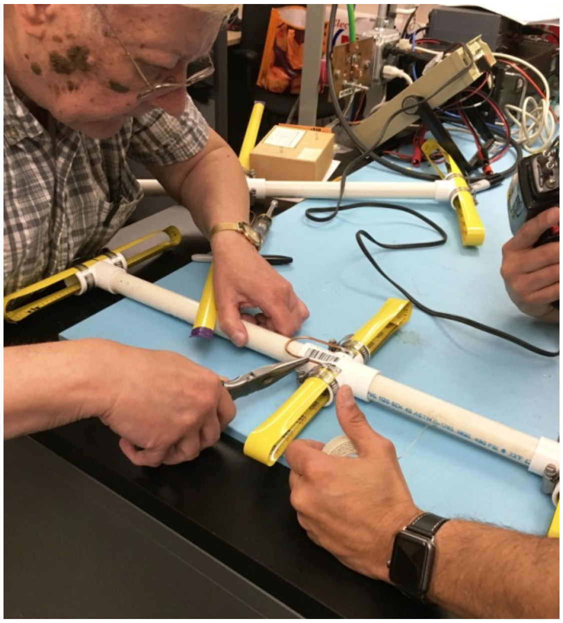
Tape Measure Antenna Class

The first FLARC beam building class took place on May 31st with Karl W2KBF and Randy W2US leading the effort. Ros KD2GKA, Skip KD2BRV, Brian KD2KLN and Nomar NP4H were our builders. As Karl noted "It's one thing to buy an antenna or other piece of equipment, but the satisfaction one receives from building is hard to beat--especially when the thing built actually works ! It proves that you don't have to spend a lot of money to enjoy this hobby, and it builds self-confidence and self-reliance in the builder." Congratulations !!

Skip KD2BRV gets down to business



Success by Noel W2MSA



Fred W2AAB clips a clamp

Randy WU2S and Roz KD2GKA

Balance Of 2019 Speaker Series Announced -- And Into 2020!!

It may be mid-Summer but the FLARC publicity committee is busy lining up a monthly speaker program that now stretches into 2020.

The programs feature Earth-Moon-Earth communication, an introduction to SKYWARN, updates from the ARRL, a look at an historic event in the early history of broadcast radio. a look at a contest superstation, and our annual look at getting some vintage FLARC gear on the air and a look at what you're thinking with the annual member survey.

Check out the events page which includes not only speakers but also activities to get us thinking about Fall, Winter and Spring 2020.

BEQUEATHS AND DONATIONS

Planned gifts usually imply the family donation of amateur equipment to the club when someone has become a Silent Key. But it can be more. Club members might consider making a gift through a will or trust; gifts that help provide lifetime income to the club. Consult with your lawyer, estate planner or tax advisor if you feel such as gift is worthy.

About The Club

The Resonator is published monthly and is the official (and only) newsletter of The Fair Lawn Amateur Radio Club. FLARC was established in 1956 and has met continuously since inception. **The club is sponsored by the Borough of Fair Lawn.** The club meets every Friday at 6PM at the club station in The Fair Lawn Community Center, 10-10 20th Street, Fair Lawn, NJ. Business meetings are the first Friday of the month at 7:30 PM.

Visitors ARE ALWAYS welcome at our meetings.

FLARC operates the W2NPT repeater (145.470- PL **167.9**) located high atop the Community Center. The analog repeater is open to all amateurs for use without restrictions.

The club has over one hundred paid members.
Dues are currently $25 per year/$20 for new members.

For more information, please see our website, at
http://membership.FairLawnARC.org

A Bit Of History

While visiting Florence (Italy) last month, Ed WX2R came across the grave of Marconi in the Church of Santa Croce.

Revered by Italians, Marconi is buried next to Galileo and close to Machiavelli and Puccini.

Marconi

Interested in Chasing DX?

A casual group of FLARCers including Van W2DLT, John KD2NRS, Brad KM2C, Karl W2KBF, Nomar NP4H, Steve WI2W, Larry WA2ALY, and Fred W2AAB have formed an email group to keep each other in touch in (real) time of when the rare or interesting ones show up to chase. Interested? See or contact Van W2DLT.

FAIR LAWN
N J
AMATEUR RADIO CLUB

FAIR LAWN'S MINISTRY OF TECHNOLOGY!

With New Antennas On The Roof!

Past FLARC Member Profiles

Here is a list of past member features and we welcome your recommendations for new profiles -- including your own.

Month	Name	Call Sign
January 2016	**Pete**	**KB2BMX**
February	**Marco**	**KC2ZMA**
March	**Ron**	**KC2TBD**
April	**Kai**	**K2TRW**
May	**Larry**	**WA2ALY**
June	**Dave**	**N8MAR**
July	**Steve**	**WI2W**
August	**Thom**	**W2NZ**
September	**Brian**	**KD2KLN**
October	**Brad**	**KM2C**
November	**Al**	**WA2OWL**
December	**George**	**W3EH**
January 2017	**Fred**	**W2ABE**
February	**Dave**	**KD2MOB**
March	**Randy**	**WU2S**
April	**Lee**	**KD2DRS**
May	**Gene**	**WO2W**
June	**Carol**	**KD2NMV**
July	**Kevin**	**KC2KCC**
August	**Robert**	**KD2NOG**
September	**Robert**	**KD2BKD**
October	**John**	**KD2NRS**
November	**Fred**	**W2AAB**
December	**Margaret**	**W2GB**
January 2018	**Brian**	**KD2OAZ**
February	**Bennett**	**KO2OK**
March	**Van**	**W2DLT**
April	**Aly**	**AL0Y**
May	**Bruce**	**NJ2BK**
June	**Dave**	**N2AAM**
July	**Karl and Susan**	**W2KBF and W6SKT**
August	**Steve**	**KA2YRA**
September	**Paul**	**K2PJC**
October	**Skip**	**KD2BRV**
November	**Ed**	**WX2R**
December	**Tom**	**N2AAX**

By the way, Randy (WU2S) has compiled a binder of all back issues of *The Resonator* and it's located in the club office. Thanks Randy!!!
Back issues are also available on our website.
http://newsletters.fairlawnarc.org

Theoretics Demystified

After many subjects covered in this column, it is time for a bit of a review for anyone new.

Have you ever poured water into a pitcher or a glass and heard the change in the pitch in sound as it fills up? Well, that is the essence of resonance! The sound pitch that you hear is the natural audible resonance of the remaining air cavity not yet filled up. That is the time constant of the sound waves as they bounce back and forth between the restrictions of the cavity involved. This holds true with all material and electromagnetic occurrences. BUT sound waves and mechanical movements, although they demonstrate the effects of resonance, are NOT electromagnetic in nature but simply mechanical. Sound is actually air molecules bumping into each other as sort of a chain reaction, so that a mechanical occurrence is transmitted through the air to our ears. A devastating demonstration of resonance was the Tacoma Narrows bridge which ripped itself apart as the winds hit a certain velocity causing it to oscillate (think flap in the wind) until it broke apart and collapsed. It was known as 'Galloping Gertie'.

In the world of the electromagnetic spectrum, waves start at a single cycle and go up to an almost infinite amount of cycles per second. Since our unit of measurement of frequent-cy is in seconds of time, it holds true that the more cycles that are squeezed into a particular second, the shorter the Wave Length of the energy given. Of particular interest is that as the frequency (of cycles in a given second) change, the characteristics change also. Radio waves can pass through brick walls but light cannot. Light is understood as waves but also as particles (photons) even though they are a part of the same electromagnetic spectrum. We as humans and animals also react differently to each part of the spectrum.

We perceive light as infra red (warmth) and visible light, but we cannot see anything beyond ultra violet which is harmful to us except in very small doses. We can thank our 'Magnetosphere' that we are not fried alive by gamma rays, x-rays and the like. Remember, we evolved in this world as it is and that is why we are the way we are. Our eyes are most sensitive to yellow and green light, somewhat to orange and red, but very little to blue light. That is why even though some of the LED lighting available is in the 6000k range and looks brighter at the source, the light reflected from the passing environment is somewhat poor as the world around us is green and brown and blue light being greatly absorbed reflects little back to our mostly yellow/green sensitive eyes. What does this have to do with resonance? Everything, think of our eyes as light antennas tuned to as specific spectrum portion.

Continued on page 45

2019 *Near and Far Net* Check-In's

Now in its third year, the FLARC *Near and Far* net is chugging along each week. Here is list of our check-ins beginning on New Year's Night in no particular order. Mondays at 8PM on the repeater.

Name	Call
Dave	**N2AAM**
Gene	**WO2W**
Van	**W2DLT**
Karl	**W2KBF**
Stan	**KC2K**
Ed	**WX2R**
Steve	**WA2BYX**
Brian	**KD2KLN**
Ken	**W2KAC**
John	**K2BIX**
Fred	**W2AAB**
Bob	**KD2BKD**
Randy	**WU2S**
Dave	**KD2JIP**
Larry	**KD2QFI**
Steve	**WI2W**
Brad	**KM2C**
Thom	**WN2Z**
Ron	**KC2TBD**
Dave	**KD2MOB**
Bob	**KM4CPU**
Bob	**KE0OPX**
Phil	**KA2SEY**
Dave	**NK2Q**
Noel	**N2OEL**
Ray	**KD2RBW**
Larry	**KD2QFI**
Matt	**K2FTP**
Paul	**K2PJC**
Tom	**WB2KWD**
Brian	**KD2OAZ**
Bob	**N2HIP**
Al	**KC2SAV**
Chris	**W2TU**
Anton	**K2PLB**
Ray	**KD2RIK**
Watson	**K3WAT**
Kevin	**KD2RJM**
Roger	**K2RRB**
Jonathan	**KC2RRK**
Glenn	**KB2MDR**

2019 Member Profiles

With Volume 4, we begin an new list of featured members in a monthly profile. See past profiles elsewhere in *The Resonator* to check back in the archives to see each featured member's background.

Month	Name	Call Sign
January 2019	**Dave**	**KD2JIP**
February	**Jim**	**K2ZO**
Marrch	**Zach**	**KC2RSS**
April	**Bob**	**N2SU**
May	**Stan**	**KC2K**
June	**Steve**	**WA2BYX**
July	**Roger**	**K2RRB**

2019 *Near and Far Net* Check-Ins (Continued)

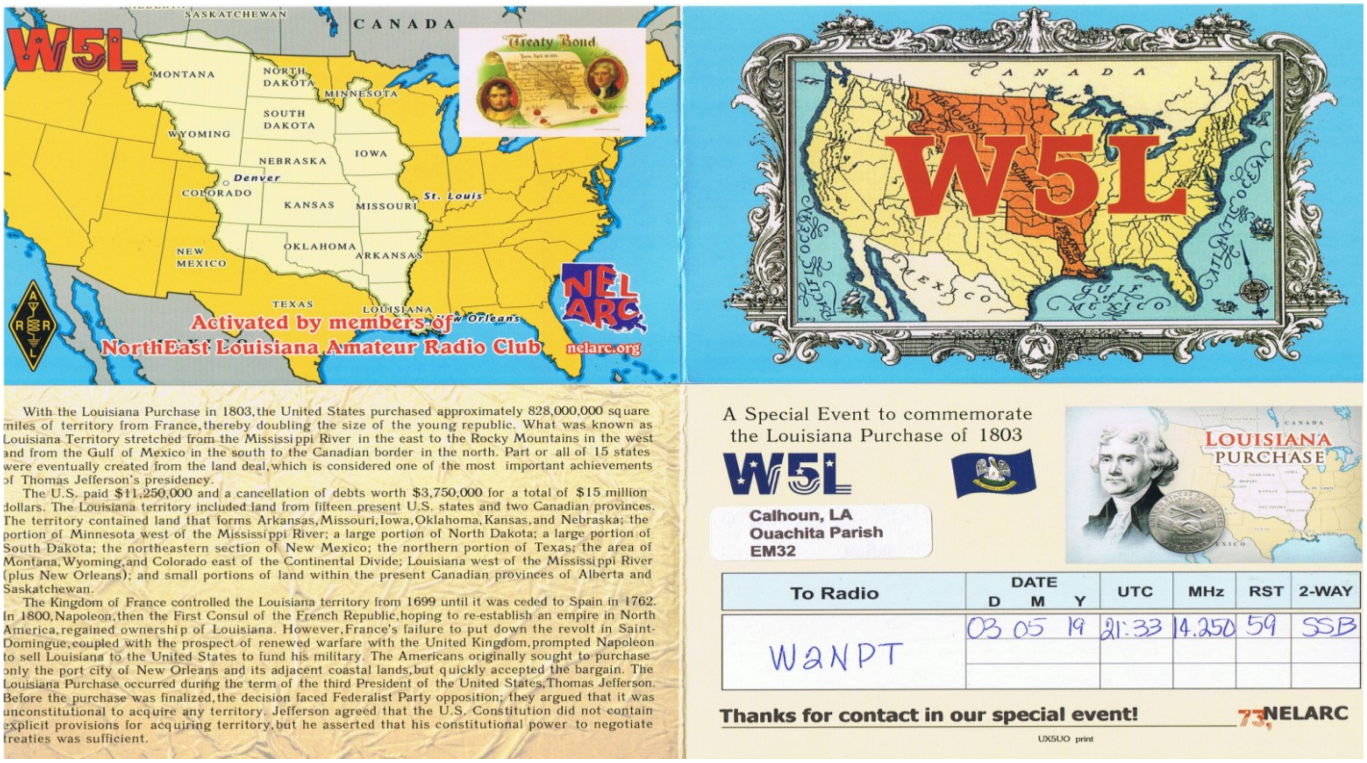
Name	Call
Andrew	**KC2G**
Kenneth	**KC2OKR**
Kenny	**W2KAC**
Fred	**W2ABE**
Judith	**KC2LTM**
Tyrell	**KB2TJK**
Glenn	**KB2MDR**

In A Nutshell

Winter Field Day, the special event stations at Great Falls in Paterson and Garrison Forge in Fair Lawn, the big one which was the 'Dayton' Xenia hamfest in Ohio, the Memorial Day parade in Fair Lawn, the Radburn street fair, Field Day and finally the Fireworks at Memorial park in Fair Lawn are all behind us. You would think that summer would be slow, but not so. As I write this, the large Sussex hamfest is coming up. Aside from all of this our club meets every Friday either at the recreation center or at the senior center when we have a speaker, which we do every month.

You can see many of the talks given, thanks to Thom W2NZ, who records them and puts the up on YouTube. There is never a dull moment at the club or with ham radio. There is much to learn, and much discovery to be done. Ham radio is much more than it ever was. There is much more that can be said but it won't fit in this nutshell.

73, Fred, W2ABE.


W5L
SASKATCHEWAN
CANADA
MONTANA
NORTH DAKOTA
MINNESOTA
SOUTH DAKOTA
WYOMING
IOWA
NEBRASKA
Denver
COLORADO
KANSAS
MISSOURI
St. Louis
OKLAHOMA
NEW MEXICO
ARKANSAS
TEXAS
LOUISIANA
New Orleans
Treaty Bond
ARRL
NEL ARC
W5L
CANADA
PACIFIC OCEAN
ATLANTIC OCEAN
GULF OF MEXICO
MEXICO
LOUISIANA PURCHASE

Activated by members of
NorthEast Louisiana Amateur Radio Club
nelarc.org

With the Louisiana Purchase in 1803, the United States purchased approximately 828,000,000 square miles of territory from France, thereby doubling the size of the young republic. What was known as Louisiana Territory stretched from the Mississippi River in the east to the Rocky Mountains in the west and from the Gulf of Mexico in the south to the Canadian border in the north. Part or all of 15 states were eventually created from the land deal, which is considered one of the most important achievements of Thomas Jefferson's presidency.

The U.S. paid $11,250,000 and a cancellation of debts worth $3,750,000 for a total of $15 million dollars. The Louisiana territory included land from fifteen present U.S. states and two Canadian provinces. The territory contained land that forms Arkansas, Missouri, Iowa, Oklahoma, Kansas, and Nebraska; the portion of Minnesota west of the Mississippi River; a large portion of North Dakota; a large portion of South Dakota; the northeastern section of New Mexico; the northern portion of Texas; the area of Montana, Wyoming, and Colorado east of the Continental Divide; Louisiana west of the Mississippi River (plus New Orleans); and small portions of land within the present Canadian provinces of Alberta and Saskatchewan.

The Kingdom of France controlled the Louisiana territory from 1699 until it was ceded to Spain in 1762. In 1800, Napoleon, then the First Consul of the French Republic, hoping to re-establish an empire in North America, regained ownership of Louisiana. However, France's failure to put down the revolt in Saint-Domingue, coupled with the prospect of renewed warfare with the United Kingdom, prompted Napoleon to sell Louisiana to the United States to fund his military. The Americans originally sought to purchase only the port city of New Orleans and its adjacent coastal lands, but quickly accepted the bargain. The Louisiana Purchase occurred during the term of the third President of the United States, Thomas Jefferson. Before the purchase was finalized, the decision faced Federalist Party opposition; they argued that it was unconstitutional to acquire any territory. Jefferson agreed that the U.S. Constitution did not contain explicit provisions for acquiring territory, but he asserted that his constitutional power to negotiate treaties was sufficient.

A Special Event to commemorate
the Louisiana Purchase of 1803
W5L

Calhoun, LA
Ouachita Parish
EM32

To Radio	DATE D M Y	UTC	MHz	RST	2-WAY
W2NPT	03 05 19	21:33	14.250	59	SSB

Thanks for contact in our special event! 73 NELARC

UX5UO print

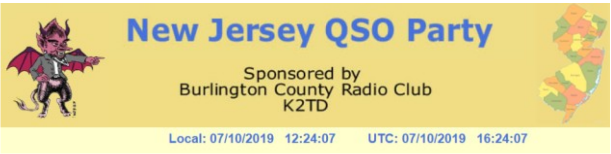
June 2019 Near and Far Net Controls

Here is the roster for net controls for the upcoming month as reported by Brian KD2KLN:

Date	Net Control
July 1	Nomar NP4H
July 8	Van W2DLT
July 15	David KD2MOB
July 22	Brian KD2KLN
July 29	Dave N2AAM

The Near and Far Net now averages close to 20 check-ins on an average week! Cool beans.

But we need more volunteers to be net controls -- if everyone takes their turn it's less burden on the others. And it's easy. Volunteer --- don't wait to be asked (unless you really want to be flattered).



RACES/ARES Corner (Continued)

Now, getting back to FL-RACES:

Our next FL-RACES KB2FLR net will take place on Wednesday, July 10th at 1920 hours. Please make a note of the new time. The Fair Lawn ARC Repeater is used (RX 145.47 MHz / TX 144.87, PL TX Tone 167.9 Hz). Thank you to the Fair Lawn Amateur Radio Club for permitting FL-RACES for using the repeater.

The volunteer efforts of our members are very much appreciated.

Our monthly meetings usually take place right after the FLARC business meeting. Please join us for the next FL-RACES meeting.

If you are interested in joining the Fair Lawn RACES, please contact me. You don't have to be a Fair Lawn resident to be a part of Fair Lawn RACES.

For information regarding Bergen County RACES, please go to http://www.bcnjraces.org.

Thank you very much. 73.

David KD2MOB

FLARC Station Openers

In order to increase the number of days the club can be opened, the following members have been either volunteered or appointed to open the station. The schedule may take a bit to fall into place, but here are those besides Council members or trustees:

CallCa	Name
NK2Q	**Dave**
W2NZ	**Thom**
W2KBF	**Karl**
KD2MOB	**Dave**
NP4H	**Nomar**
W3EH	**George**
W2AAB	**Fred**
WX2R	**Ed**
KD2KLN	**Brian**
Current FLARC Officers and Trustees	

FLARC And Related Call Signs

Club Call	**W2NPT**
RACES	**KB2FLR**
ARES	**KB2FLA**

Independence Day Fireworks

Once again, FLARC performed communications duties as part of the annual borough July 4th celebration (it's "international theme" coinciding neatly with Canada Day).

A thanks to the following members who took part:

Judith S. KC2LTM - Fred W. W2ABE - Tony G. W2SIQ - Skip B. KD2BRV - George R. W3EH

Ron F. KD2TBD - Gene O. WO2W - Roz R. KD2GKA - Ed E. WX2R - Steve W. WA2BYX

Ham Radio Day for Kids
27 July 2019

FLARC and the Tri-County Repeater Association (TCRA) will conduct a special **Ham Radio Day for Kids** on Saturday, July 27, 2019. The event will run from 11:00 am to 3:00 pm at the Union County Office of Cultural and Heritage Affairs, 633 Pearl Street, Elizabeth, NJ.

This event will be like our very successful activities at Paterson Great Falls National Park in support of Earth Day. It is intended introduce various aspects of amateur radio to local families and their children. We want to present ham radio as a family activity that complements STEM education, provides opportunities for community service and enriches one's understanding of cultures, geography and history.

The plan is to arrive at the site at 9:00 am and set up the antennas, canopies, radio stations, and publicity and Morse code booths. The families will begin arriving at 11:00 am. The site has a large open grassy area adjacent to the Elizabeth River and conveniently located tall trees suitable for the temporary installation of wire antennas.
Randy WU2S is organizing this event and will transport all the heavy gear that we need. Please contact Randy via email to randy@wu2s.com or phone 201-264-5839 to volunteer and make this a positive experience for some potential new hams.

Bob Killi WA2WYW SK

The club sadly reports the death of Robert K (Bob) Killi WA2WTW on June 20th.

He was a former Fair Lawn resident and was one of the early members of FLARC; remembered by many.

He leaves behind his wife Margaret of 52 years, five children and eight grandchildren.

The club has sent along our condolences.

Live from the Ham Shack

One of the most productive videographers in the amateur radio world, next to our own Thom W2NZ of course, is Jason Johnson KC5HWB from Grapevine, Texas.

To date Jason has produced 213 video episodes and his YouTube channel, Ham Radio 2.0[Ref 1], has over 18,000 subscribers.

His channel focuses on two main areas – introductions to new amateur radio products and reports from major ham conferences. The episode list also includes several "How-To" videos which help hams configure and use contemporary radios. He produced a playlist about AREDN® mesh networking comprised of seven videos. There is another playlist about Digital Voice Hotspots with seven videos too.

A sample list of his radio products episodes includes:

- Ham Radio Deluxe software
- Icom IC-9700 demonstration
- Yaesu FT3D, a first look
- Flexradio Maestro Introduction
- Anytone AT-D878UV Dual Band DMR HT with APRS

Some representative videos about amateur radio conferences are:

- Hamcom – a Livestream showing the vendor booths before the crowds arrive
- Hamvention – Buddipole and Yaesu product updates
- TAPR Digital Communications Conference - D.R.A.W.S. - the Digital Radio Amateur Workstation from NW Digital Radio
- Hamcom – Elecraft K4 updates
- TAPR Digital Communications Conference - Beyond Line-of-Sight Digital Communications with the LoRa Spread-Spectrum Waveform
- TAPR Digital Communications Conference - Towards A 21st Century Understanding of Earth's Upper Atmosphere
- Orlando Hamcation – Combitronics (Netherlands) product updates
- Cowtown Hamfest - DMR over MESH Forum

I have met Jason several times during the last 5 years at Hamvention in Ohio and Hamcom in Texas. He is an energetic and hardworking producer who brings a lot of helpful information to the ham radio community. His YouTube channel is one of my favorites. Give it a look and I think it will become your favorite channel too.

73,
Randy WU2S

References:

1. Ham Radio 2.0-Livefrom the Ham Shack (video series) https://www.livefromthehamshack.tv/

Around the Shack
de N4GG

The World's Best Antenna

Somewhere, somehow along the way I became known as an antenna guru.
That's led to my fielding the question: "What's the best antenna?" many times.

The column will be short this month. There is no best antenna.

My answer always is: "What do you plan to do with it, and what are your limitations?"

Before any wires get soldered, the tower(s) get their concrete bases and the coax gets routed, ask yourself these questions:

- Am I doing this to communicate - or to experiment with antennas? If the answer is yes to the latter, then you can skip the rest of the questions and get to work trying something new. Experimenting with antennas is fun unto itself, even if you make very few contacts.

If you are going to build an antenna to communicate, then think through:

- Who do I want to communicate with? Far-flung DX? My rag-chew pals in Kentucky?

- What bands am I interested in? Transmit antennas for bands below 10 MHz are typically noisy on receive. As you go down in frequency, a separate low-noise antenna for receive will be needed for DXing, but not for a local rag-chew.

- Single band or multi-band?

- Single mode or multi-mode? Antennas don't know the difference between SSB, CW or digital modes; RF is RF. But, if you are a single-mode operator, you can consider high Q (narrow bandwidth) antennas that can have remarkable performance over only the portion of a band that interests you.

- How much power? The options for QRP are different than the options for QRO.

- Permanent, semi-permanent or temporary?

With those questions answered it's on to the limitations questions:

- Resources? How much time and money am I willing to invest?

- HOA? Is this going to be a stealth antenna?

- How big is the yard? Where are the trees? The trees *always* matter. We use trees to hang wire antennas and we avoid trees when a tower goes in. Those leaves absorb RF.

If you are going to put up a new antenna, the old saying: "Measure twice cut once" comes to mind. Asking yourself the right questions before you start can save a lot of time and money. Skip the questions and expect to do some things over again, or settle for less performance than you could have had.

Questions answered? Good – now on to the design phase. You know what to do: the handbooks, QST archives, the internet, product reviews and chatting-up the antenna guru who lives in town (or anywhere these days of free long-distance and the internet).

73, Hal N4GG

Memorial Day 2019

Sunny and warm weather marked this year's annual parade with FLARC providing the communications. Lots of fun and good-will -- thanks to all who volunteered to help out!!

A big thanks to -- JUDITH KC2LTM, FRED W2ABE, ED WX2R, GENE WO2W

KARL W2KBF, SKIP KD2BRV, BRAD KM2C, MARVIN N2JLC, JOHN KC2OCD

ZACK KC2RSS, STEVE KA2YRA, STEVE W WA2BYX and NOEL W2MSA

Memorial Day 2019 -- A nice sea of FLARC red!!

FAIR LAWN
N J
AMATEUR RADIO CLUB

MONK APOLLO, SV2ASP R.I.P.

By: Fred Belghaus, W2AAB

On May 5, one of the world's most sought-after amateur operators became a Silent Key. His call was SV2ASP/A, and his name was Monk Apollo. Monk Apollo was located at one of the rarest DX locations in the world, Mount Athos. Technically a part of Greece, it is an autonomous territory, and hence, given separate status as a DX entity. In terms of rarity, Mount Athos is the second-rarest DX entity, right behind the "Democratic People's Republic of Korea," more commonly known simply as North Korea. His station was set up at the monastery known as Docheiariou.

Here is a link for more details of his life, including a video of Monk Apollo working one of his many "pileups" from DXers around the world eager to make a QSO with him…

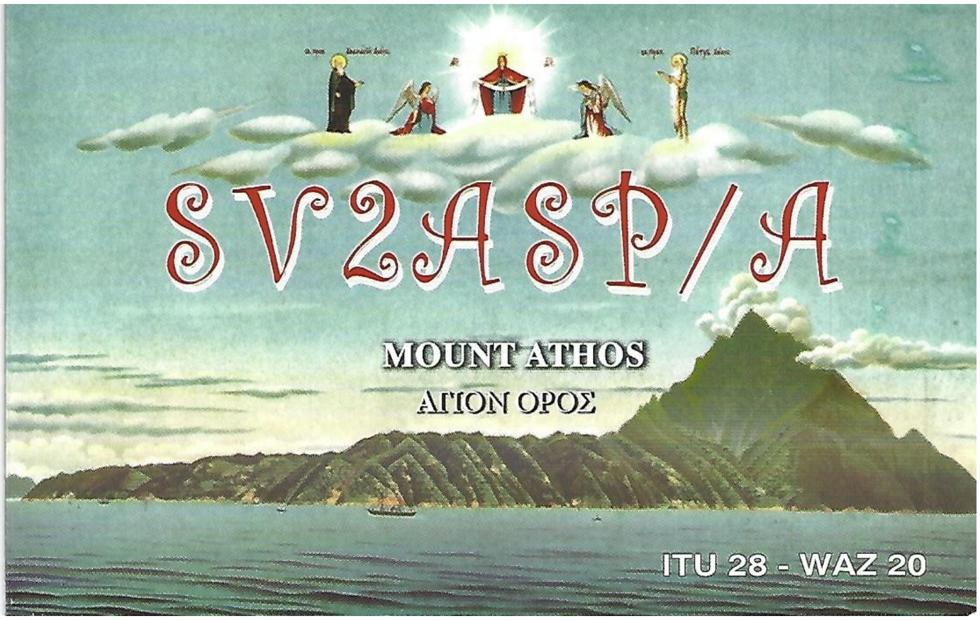
https://dx-world.net/sv2asp-monk-apollo-s-k/

My QSO with Monk Apollo had an unusual twist. I was anxious to operate on 17 meters, but the automatic ATU I was using at the time could not find a suitable "match" on that band. So, in an effort to overcome this difficulty, I strung a simple half wave dipole in the attic for the 17 meter band.

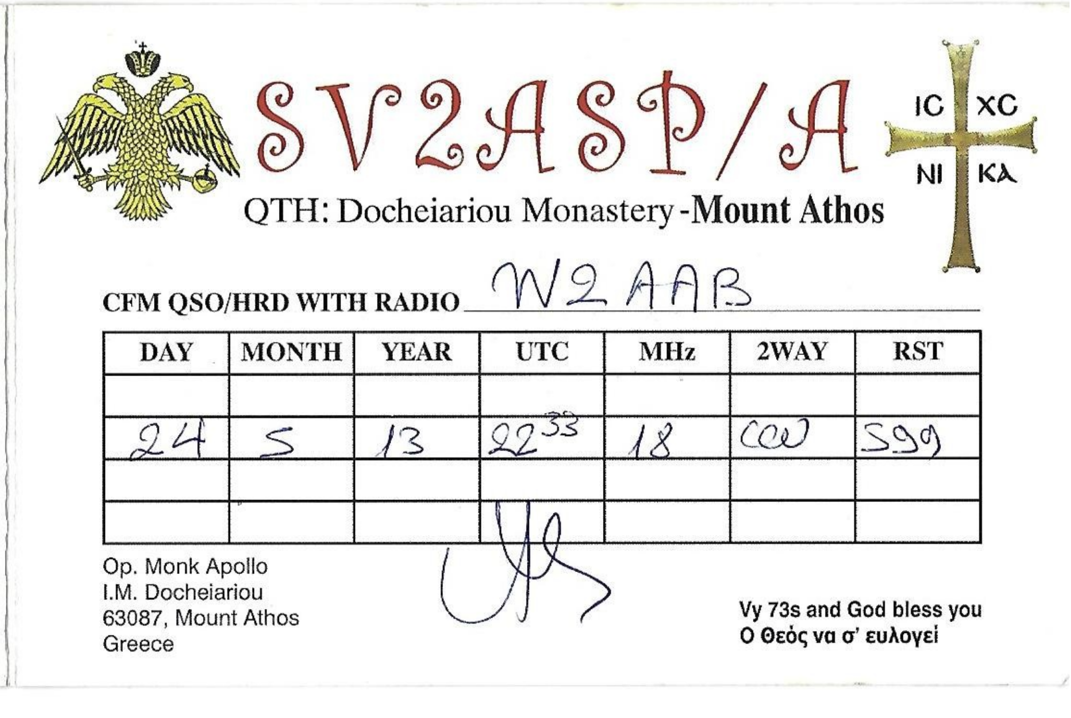
Within a day or two of building this antenna, I happened to be tuning there, and heard a reasonably strong signal on CW calling CQ. It was Monk Apollo, SV2ASP/A. When he listened, I called, and worked him easily. Needless to say, it was quite a thrill to bag this rare station on the first call.

When I signed with him, the pileup of stations calling him started — and continued for some time. Monk Apollo patiently worked all of those that he could hear. But for me, I had been treated to the DXer's dream — to be the first to work a "rare one," before the onslaught of other callers.

I quickly looked up his QSL information, and wrote out my QSL card, enclosing the usual "green stamps" to cover his postage cost. That day, I mailed the envelope containing my card, and hoped I'd get a confirmation in return. I didn't have long to wait. In only about ten days, an envelope arrived in my mailbox with a beautiful, unusual stamp from Mt. Athos. I had hit the jackpot! Here's a scan of his four page QSL, one of many cards that I treasure.



MONK APOLLO, SV2ASP R.I.P.



SV2ASP/A

IC XC NI KA

QTH: Docheiariou Monastery -**Mount Athos**

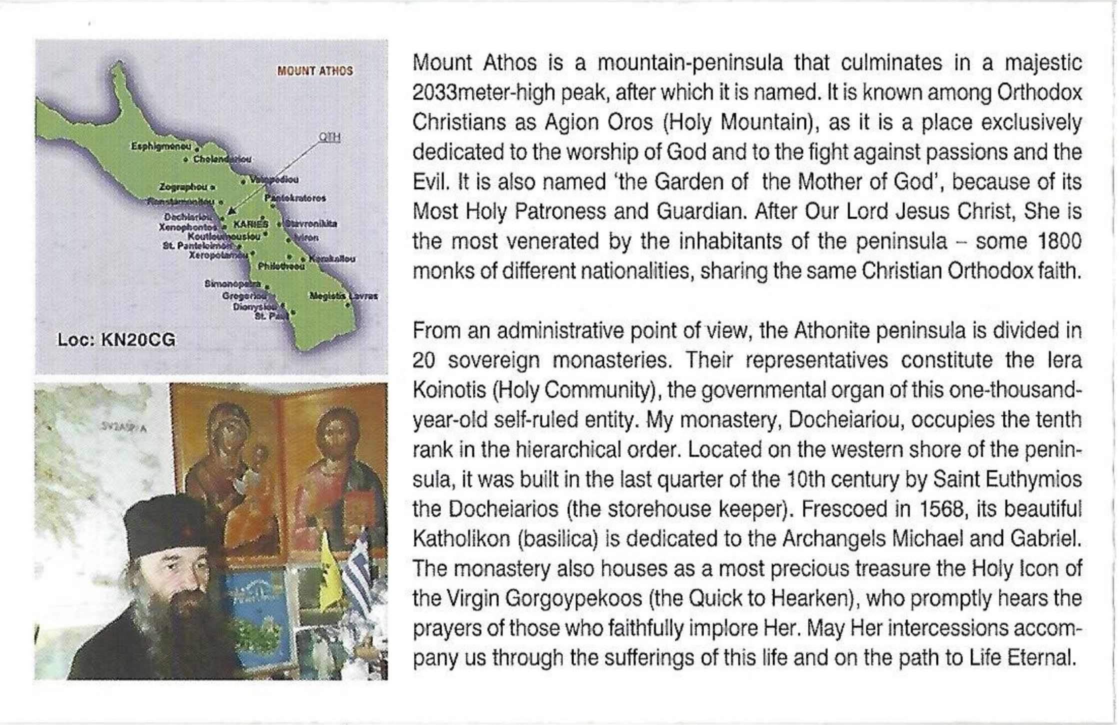
CFM QSO/HRD WITH RADIO W2AAB

DAY	MONTH	YEAR	UTC	MHz	2WAY	RST
24	5	13	22 ^{33}	18	CW	599

Op. Monk Apollo
I.M. Docheiariou
63087, Mount Athos
Greece

Vy 73s and God bless you
Ο Θεός να σ' ευλογεί

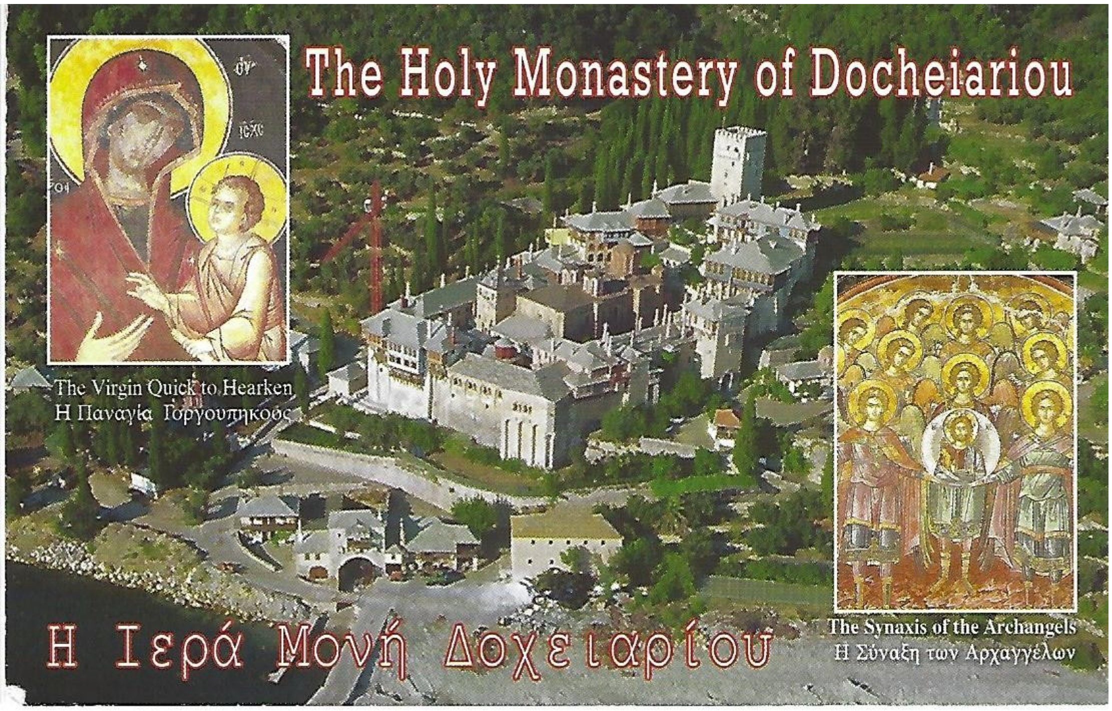
Additional pages of his card provide background details of his monastery…


MOUNT ATHOS
QTH
KARIES
Loc: KN20CG

Mount Athos is a mountain-peninsula that culminates in a majestic 2033meter-high peak, after which it is named. It is known among Orthodox Christians as Agion Oros (Holy Mountain), as it is a place exclusively dedicated to the worship of God and to the fight against passions and the Evil. It is also named 'the Garden of the Mother of God', because of its Most Holy Patroness and Guardian. After Our Lord Jesus Christ, She is the most venerated by the inhabitants of the peninsula – some 1800 monks of different nationalities, sharing the same Christian Orthodox faith.

From an administrative point of view, the Athonite peninsula is divided in 20 sovereign monasteries. Their representatives constitute the Iera Koinotis (Holy Community), the governmental organ of this one-thousand-year-old self-ruled entity. My monastery, Docheiariou, occupies the tenth rank in the hierarchical order. Located on the western shore of the peninsula, it was built in the last quarter of the 10th century by Saint Euthymios the Docheiarios (the storehouse keeper). Frescoed in 1568, its beautiful Katholikon (basilica) is dedicated to the Archangels Michael and Gabriel. The monastery also houses as a most precious treasure the Holy Icon of the Virgin Gorgoypekoos (the Quick to Hearken), who promptly hears the prayers of those who faithfully implore Her. May Her intercessions accompany us through the sufferings of this life and on the path to Life Eternal.

MONK APOLLO, SV2ASP R.I.P.


The Holy Monastery of Docheiariou
The Virgin Quick to Hearken
Η Παναγία Γοργοϋπήκοος
The Synaxis of the Archangels
Η Σύναξη των Αρχαγγέλων
Η Ιερά Μονή Δοχειαρίου

My 17 meter dipole is no more, though. Once I replaced that automatic ATU with my trusty old Johnson Matchbox (made in the 1950s), I no longer need anything more than my 40 meter delta loop to work all bands.

73,
Fred, W2AAB

Dr. Alan Katz K2UYH Highlights July 19th "Getting Started With Earth-Moon-Earth" FLARC Speaker Series

The July program at the Fair Lawn Senior Center will introduce EME expert Dr. Alan Katz K2UYH who will focus on getting started on Earth-Moon-Earth communications on 1296 MHz and the higher bands; but will be applicable to all the VHF bands.

Most hams think it takes a big antenna and high power to work EME. This presentation will change this impression by showing examples of how little it takes to make a QSO off the Moon. A single yagi and 50 W will get you started. It will start with a little history and then cover all important aspects of EME needed for success. The program begins at 7PM and refreshments will be served.

Al (K2UYH) has been a radio amateur since he was a teenager, with an interest in the UHF/microwave frequencies and Moonbounce. He completed the first WAC above 144 MHz in 1976, on 432 the second WAS, and on 432 and 1296 the third DXCC. He has also completed WAC on 23 thru 3 cm.

He has been editor/publisher of the "432 and Up EME Newsletter" for more than 45 years, before that he edited the VHF column for CQ magazine. He is a professor of Electrical/Computer Engineering at The College of New Jersey. He especially prizes the ARRL's Technical Merit and the CSVHF Society's John Chambers Awards among others that he has received for his contributions. He is a Fellow of IEEE and a past Distingu

Dr. Alan Katz K2UYH

Ron Bosco WB2GAI Highlighted June 14th "DXpedition To Crete" * FLARC Speaker Program

Ron Bosco WB2GAI highlighted our June program on Friday, June 14th with the details of his 2017 trip to Crete. The program outlined all the preparation of planning for an international trip as well as all the rewards (and Murphy's) that can come about in any extensive trip such as this was.

A crowd of over thirty was in attendance and there were many questions and some real positive comments afterwards.

Thanks Ron for taking the time to be with us at FLARC!
Tnx Glenn for the pix!

A bevy of questions for Ron after the event

VP Van W2DLT presents Ron with a thank you for the evening

So You Think Drones Are Something New?

BY: Fred Belghaus, W2AAB

With all the hype about drones, and the belief that they are examples of the "latest technology," not many of us know that they are actually quite "old" technology.

The first attempts to deliver aerial bombs date back to 1849, when the Austrian army attacked the city of Venice with unmanned hot air balloons fitted with explosives. These were not very successful, because many of them were carried by winds back to the Austrian lines, wreaking havoc and injury among their own troops. [1]

There were some who believed that drones could be improved, but it wasn't until Nikola Tesla built the first radio controlled boat in 1898, [2] that the possibility of a remotely controlled aerial device became a reality. Tesla first developed an unmanned, radio controlled torpedo boat for possible use by the U.S. Navy. Tesla applied for and received a patent for his invention in November, 1898. At about the same time, one R.J. Clarke demonstrated a similar device for a radio controlled mine. The scientific establishment, however, dismissed Tesla's work in favor of Clarke's, unbelievably attacking the Serbian genius for "stealing" Clarke's idea! [3] For a video demonstration of a replica of one of Tesla's radio controlled boats, see this link…

https://youtu.be/gkzPBsZ7c1I

Note that this device responded to essentially "spark" transmissions, and used no vacuum tubes or other amplifying devices. There are 2 detectors operating at two different frequencies, each one a simple coherer (glass tube packed with iron filings, which provide a semiconductor effect).

Eventually, Tesla lost interest in promoting this idea, and concentrated instead on his proposal to provide electric power by wireless, a plan which never materialized because the chief financing for it was supposed to come from J.P. Morgan, who withdrew his backing once he discovered that Tesla intended to offer electric power without charge to consumers. But the seeds were planted, and the first proposed use of radio controlled aircraft delivering bombs took place during World War I.

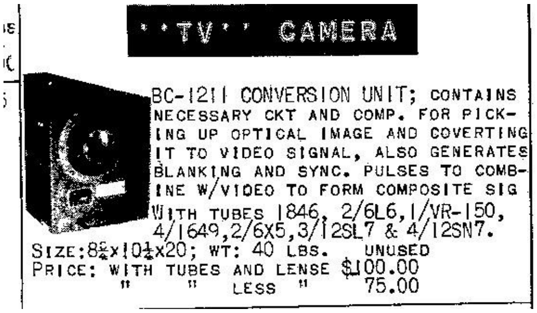
The year was 1917, and although successfully demonstrated, the drones, whose technology was based upon Tesla's work, was never actually implemented by the U.S. military. [4] Instead, this inspired the invention of the Kettering Bug, built by Charles Kettering of Dayton, Ohio, for the Dayton-Wright Airplane Company, a pilotless aerial torpedo, capable of attacking targets up to 75 miles from its launch point. [5]

During World War II, Germany produced the FX-1400, commonly known as the "Fritz X." It was first deployed in 1943, and was the first radio controlled weapon actually used by military forces. It delivered a 2,300 pound bomb to sink ships during combat, and was the predecessor of similar guided missiles used to this day. [6]

The U.S. military eventually started using drones as well during World War II, but originally, their use was confined to provide aerial reconnaissance photography, chiefly in the Pacific. At first, still photographs were taken, and later, television cameras were installed. I recall seeing some of this equipment offered for sale by surplus dealers in the 1960s.

So You Think Drones Are Something New?

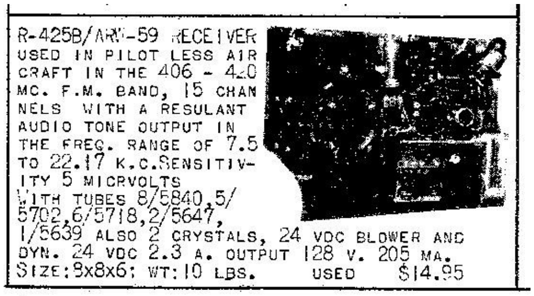
One of these was a VHF receiver, advertised in the Fair Radio Sales catalog around 1963. The other item was the TV camera and its associated equipment. I no longer have copies of those early catalogs, but a 1971 Fair Radio catalog includes a camera of similar type to those I have seen in earlier catalogs. This one carries the nomenclature BC-1211:



""TV"" CAMERA

BC-1211 CONVERSION UNIT; CONTAINS NECESSARY CKT AND COMP. FOR PICKING UP OPTICAL IMAGE AND COVERTING IT TO VIDEO SIGNAL, ALSO GENERATES BLANKING AND SYNC. PULSES TO COMBINE W/VIDEO TO FORM COMPOSITE SIG WITH TUBES 1846, 2/6L6,1/VR-150, 4/1649,2/6X5,3/12SL7 & 4/12SN7.
SIZE:8¾x10¼x20; WT: 40 LBS. UNUSED
PRICE: WITH TUBES AND LENSE $100.00
" " LESS " 75.00

In a 1976 Fair Radio catalog, there appears an advertisement for a UHF receiver used in drones. This one is probably of later vintage, possibly used during the Korean conflict in the early 1950s. It bears the nomenclature R-4258/ARW-59, which suggests that it was used by both the Air Force and Navy:



R-425B/ARW-59 RECEIVER USED IN PILOT LESS AIR CRAFT IN THE 406 - 420 MC. F.M. BAND, 15 CHANNELS WITH A RESULANT AUDIO TONE OUTPUT IN THE FREQ. RANGE OF 7.5 TO 22.17 K.C.SENSITIVITY 5 MICRVOLTS
WITH TUBES 8/5840,5/5702,6/5718,2/5647, 1/5639 ALSO 2 CRYSTALS, 24 VDC BLOWER AND DYN. 24 VDC 2.3 A. OUTPUT 128 V. 205 MA.
SIZE:9x8x6; WT:10 LBS. USED $14.95

One final note is this curiosity: In the October, 1946 edition of *Radio News,* there is an article describing the possible use of drones to deliver nuclear weapons. [7] This was obviously before the United States had developed its missile arsenal, a development that would not become a reality until the late 1950s, and continues to the present.

We close this short look back in time with a copy of the 1946 magazine's cover. [next page]

73,
Fred W2AAB

NOTES

[1] "The History of Drones (Drone History Timeline from 1849 to 2019)" at: https://www.dronethusiast.com/history-of-drones/

[2] Carlson, Bernie, "Nikola Tesla's Third Greatest Invention: The First Drone," *Forbes,* July 11, 2018, at: https://www.forbes.com/sites/berniecarlson/2018/07/11/nikola-teslas-third-greatest-invention-the-first-drone/#62be233b64d6

[3] Ibid.

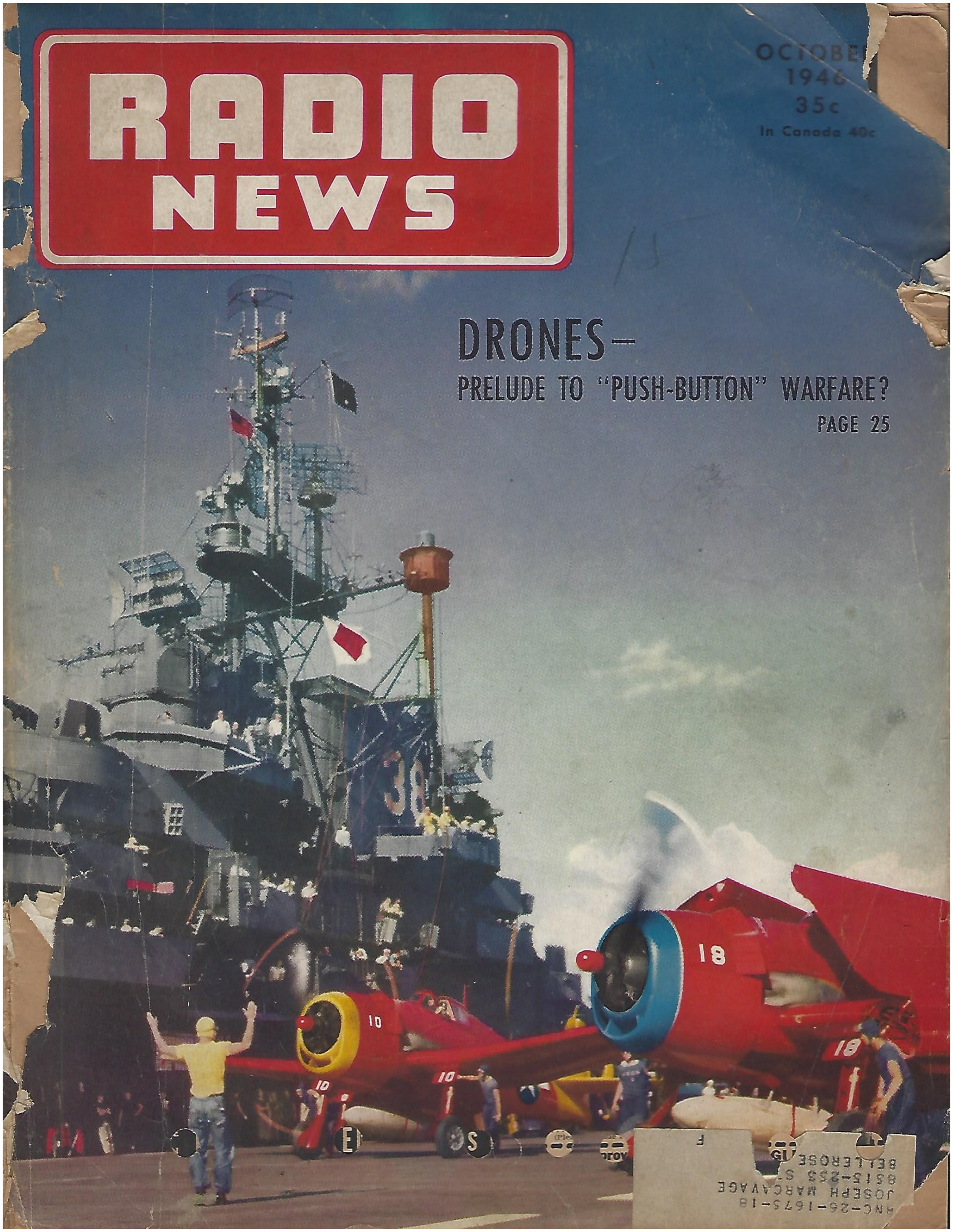
[4] Dormehl, Luke, "The History of Drones in 10 Milestones," at: https://www.digitaltrends.com/cool-tech/history-of-drones/

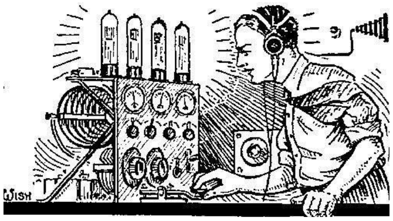
[5] Wikipedia article: "Kettering Bug," at: https://en.wikipedia.org/wiki/Kettering_Bug

[6] Dormehl, Ibid.

[7] Read, Oliver, "Drones—Prelude to 'Push-Button' Warfare?" *Radio News,* October, 1946

So You Think Drones Are Something New?





The Way We Were --

By Fred Belghaus W2AAB

The East Coast Chronicles – Part 1

Introduction: *Back in the late 1960s and early '70s, Ken Sessions K6MVH published a series of articles in FM Magazine called, "The Chronicles of Seven Six." It was about a group of amateurs in the Los Angeles area on the 2 meter band, and their operations on the FM simplex frequency of 146.76. Ken's articles were an inside look at the personalities, some of whom were rather notorious, that made up the denizens of that 2 meter frequency. The East Coast Chronicles is a long-delayed echo of that series, the purpose of which is to prove that hams can be just plain nutty everywhere, maybe even in your own hometown. This series is dedicated to the memory of the 2 meter FM operators I once knew, many of whom have hung up their microphones forever, who are no longer troubled by jammers or miscreants, and who no longer have to fear the long arm of the FCC. It is also dedicated to Paul Signorelli, W0RW (ex-K6CHR), one of the original actors in Ken Sessions' drama who, through our email correspondence, helped inspire the creation of this series. Most of all, it is dedicated to the late Ken Sessions, K6MVH, and his wonderful band of screwballs in the wild and wooly days of 2 meter FM on the "preferred frequency" of "seven six." The names of the actors in this series have been changed to protect the guilty.*

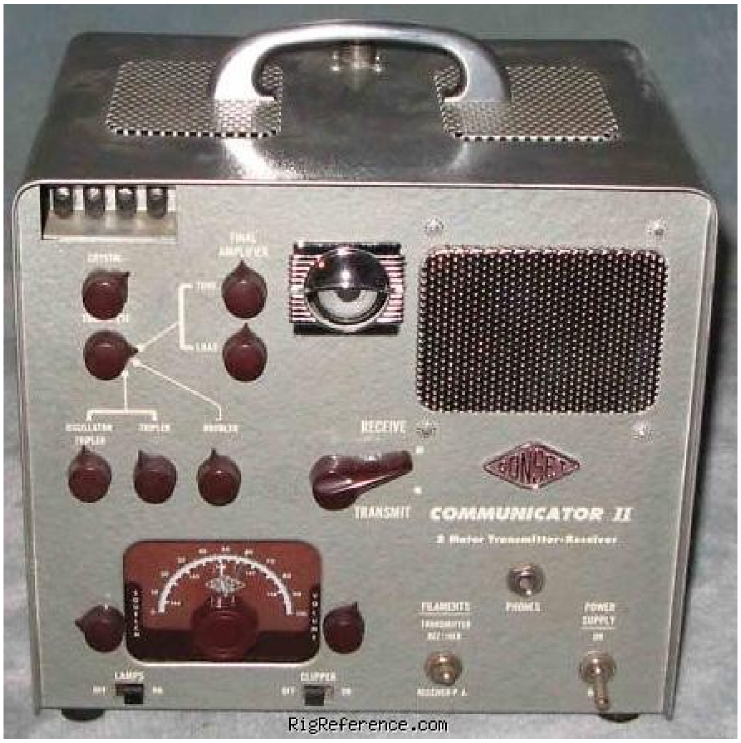
The Beginning

In the Beginning, the FCC created the 2 meter band. And the band was empty and void, and silence was upon the face of the kilohertz. Then did a small group of experimenters, giants among men, and men of renown, begin to modify their pre-1945 2-1/2 meter transmitters and receivers. They pruned a turn or so off their coils, and cut an inch or so off their old 2-1/2 meter antennas. Others built new transmitters and receivers from recently published construction articles in *QST* and *CQ,* while yet others began to modify recently released World War II surplus to get them on the new 2 meter band.

And it came to pass that although the band was still mainly empty, in the year 1951, the almighty FCC created the Novice class license, which allowed these, mainly beardless youths to operate on 2 meters. This added a handful of new operators to the band, but it was not until 1957, when it was decreed that Technicians could operate there as well, and it was so. And every tribe of ham, Novice, Technician, General, Advanced and Extra did co-exist therein, and the band was filled, even to overflowing. Verily, verily, I say unto you, the wise men saith unto one another, "Indeed, what hath God wrought!"

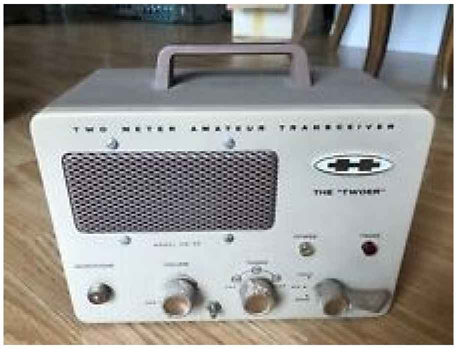
The Way We Were

Those were innocent days, before hams' fall, most operating on AM for local ragchews, some using narrowband FM (NFM), and CW would be mainly for weak-signal work on the low end of the band. Transceivers began to appear, like the well-known Gonset "Communicators." These were very popular, many loaned out to members of Civil Defense RACES, which allowed beginners or those on limited budgets to get on 2 meters without additional expense. These grey hammer-tone rigs were commonly called "Gooneyboxes" or "Gooneybirds, depending on where you lived.



Gonset "Communicator" (Image: Rigreference.com)

Just a few years later, Heathkit introduced another rig, even more popular, known as model HW-30, but more commonly known as the "Twoer." This was offered as a kit or wired, and formed part of a quartet of identical looking transceivers for different bands. The "Tener" covered 10 meters, the "Sixer," six, and the Model CB-1, for Citizen's Band. Of them all, the "Twoer" was by far the most popular, and sold for a modest $44.95 [1] in 1960, which translates into $388.90 in 2019 dollars! [2] We all made less money then, but things were a lot cheaper, too.



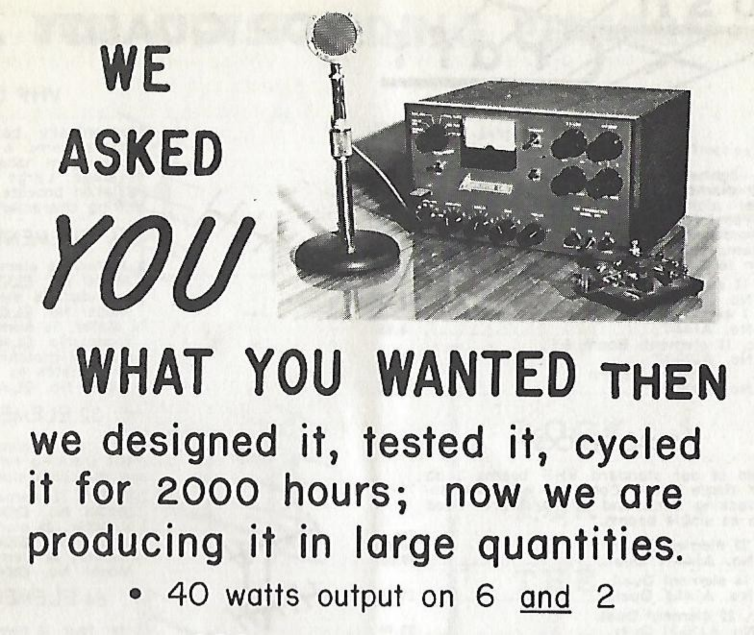
Heathkit "Twoer" (Image: eBay)

The Way We Were

These also had a nickname: They were called “Benton Harbor Lunchboxes,” because they were produced by Heathkit in Benton Harbor, Michigan, and looked like a school kid’s lunchbox of those days. Today, all such equipment has become highly collectible. In those days, we just thought of them as cheap rigs, and not very good rigs, either. The “Twoer” ran about 5 watts input, and 1 or 2 watts output, with a super-regenerative receiver, like the much earlier VHF transceivers made prior to World War II, except using miniature tubes and modern styling. The rig came with a small, ceramic microphone, with a connector that screwed on to the receptacle, at extreme lower left. Despite these shortcomings, they often provided many contacts with locals, and remained in shacks until FM replaced AM on the 2 meter band in the 1970s.

I first came on the 2 meter band in the summer of 1962, operating from the station of another local ham on Saddle River Road, who had been my Novice Class volunteer examiner. The station transmitter was part of a Gonset Communicator (2E26 final) with a World War II surplus T-17 carbon microphone. The receiver was a tunable superhet made by Sonar with a busted dial cord. To tune the band, you had to reach inside and manually turn the dial cord drum. It was crude, but it worked. The antenna was a simple half-wave wire dipole strung between the roof and a tree, and fed with some old RG-58. Even with that simple setup, I got instantly hooked on the band. But it would be several years before I could setup my own 2 meter station, on AM, of course.

There were a host of small manufacturers, all catering to the VHF market. Most made receiving converters, but some made transmitters and transceivers, too. Some of these were Tecraft, Ameco, Polycomm, Amplidyne, Lettine, Whippany Labs, Vanguard, and many others.



WE ASKED *YOU* WHAT YOU WANTED THEN

we designed it, tested it, cycled it for 2000 hours; now we are producing it in large quantities.

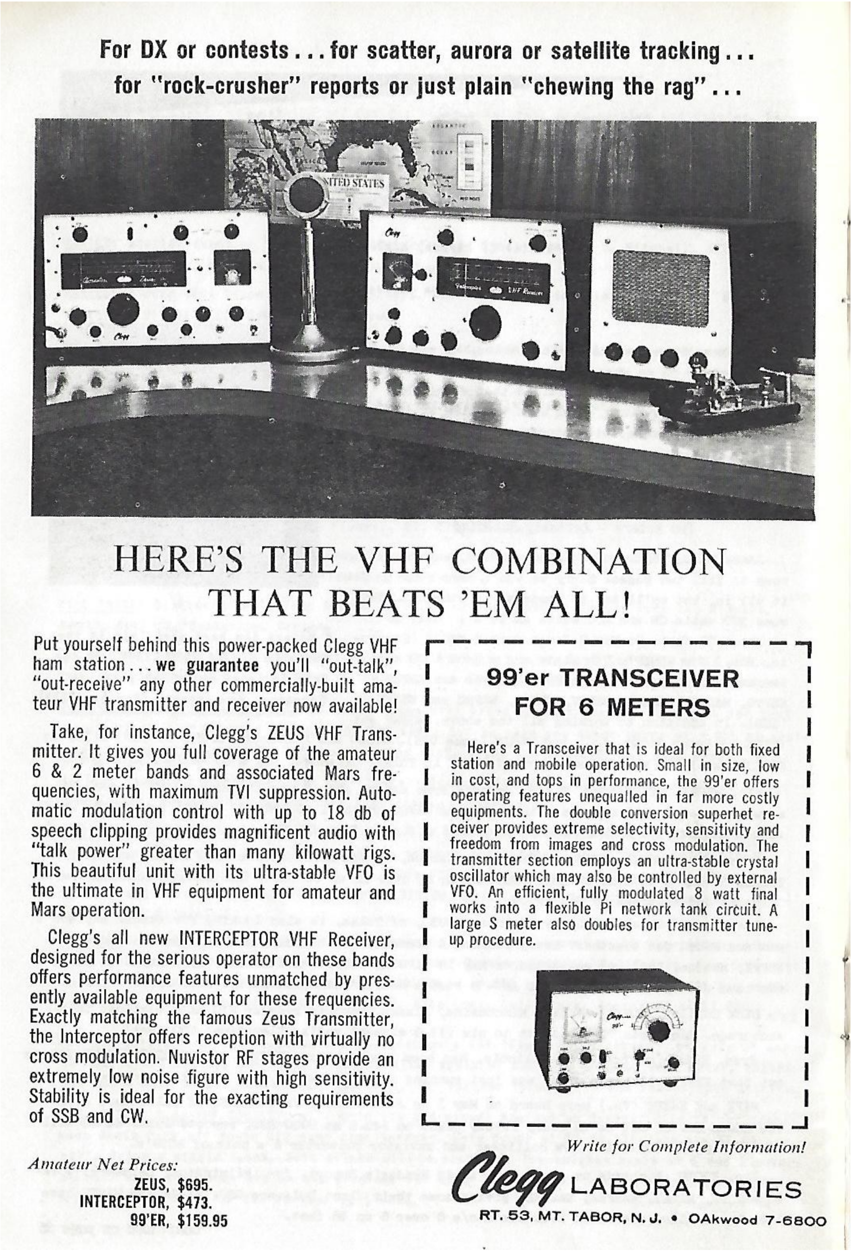
- 40 watts output on 6 and 2

Amplidyne 2 & 6 Transmitter advertisement (Image: 6UP Magazine, May, 1964)

The Way We Were

For more serious work, there were E.F. Johnson's 6N2 transmitter and "Thunderbolt" KW amplifier, which made a formidable combo. Heathkit's "Seneca" transmitter was no slouch, either. Clegg Laboratories became a popular manufacturer of high quality transceivers. They were originally located in Watchung, New Jersey, and later moved to Mt. Tabor in Morris County. Their most popular model was the 2 meter Clegg "22er," a transceiver that ran about 15 watts, but their "top of the line" offerings were the "Zeus" transmitter (originally called the "Climaster Zeus") and the "Interceptor" receiver.

The Clegg "Twins" were the envy of every serious VHF operator, with more than 150 watts input on 6 and 2 meters, and with a matching superhet receiver with low-noise, nuvistor front end that provided exceptional performance. It was rumored that one of our locals sold his car just to buy a pair of these. No, he wasn't married!



For DX or contests . . . for scatter, aurora or satellite tracking . . . for "rock-crusher" reports or just plain "chewing the rag" . . .

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Clegg's all new INTERCEPTOR VHF Receiver, designed for the serious operator on these bands offers performance features unmatched by presently available equipment for these frequencies. Exactly matching the famous Zeus Transmitter, the Interceptor offers reception with virtually no cross modulation. Nuvistor RF stages provide an extremely low noise figure with high sensitivity. Stability is ideal for the exacting requirements of SSB and CW.

99'er TRANSCEIVER FOR 6 METERS

Here's a Transceiver that is ideal for both fixed station and mobile operation. Small in size, low in cost, and tops in performance, the 99'er offers operating features unequalled in far more costly equipments. The double conversion superhet receiver provides extreme selectivity, sensitivity and freedom from images and cross modulation. The transmitter section employs an ultra-stable crystal oscillator which may also be controlled by external VFO. An efficient, fully modulated 8 watt final works into a flexible Pi network tank circuit. A large S meter also doubles for transmitter tune-up procedure.

Amateur Net Prices:

ZEUS, $695.
INTERCEPTOR, $473.
99'ER, $159.95

Write for Complete Information!

Clegg LABORATORIES
RT. 53, MT. TABOR, N. J. • OAkwood 7-6800

Image: VHF Amateur magazine, July, 1962

The Way We Were

Look at those prices, though. $695 for the Zeus ($5,893.51 in 2019 dollars), and $473 for the Interceptor ($4,010.98 in 2019 dollars)!! [3] What cost $1,168 in 1962 would now set you back $9,904.49 today. That reflects an inflation rate of 748%.

Antennas for 2 meters ranged in complexity from a simple “bent coathanger” 19 inches long, stuck into the antenna jack of a cheap transceiver, to elaborate multi- element long Yagi beams, some even made up of 4 long Yagis stacked vertically and horizontally in what were called “box arrays,” installed on towers and fed with low loss coax. There were a few homebrew kilowatts on the band, most using a pair of Eimac 4CX-250Bs -- but not many.

But all was not idyllic on the 2 meter band. Already, we were losing our innocence. A now Silent Key who once lived on Mayfair Terrace, a few blocks from me, told me about a particular character that raised eyebrows and ultimately, a vigilante group formed to locate him in the late 1950s. This individual once lived around the corner from me. He held a Novice Class license and used a Gonset Communicator with matching Gonset VHF amplifier for 2 meters. The Gonset amplifier used a pair of 826s in push-pull, and ran at least 100 watts input — a rather high power level in those days, and certainly more power than the 75 watt limit allowed for Novices. I remember my dad complaining of “that ham radio guy” interfering with our RCA TV set, whose voice could be heard when dad watched channel 7. He was only about 200 feet away from us, and his (illegal) 100 watt signal was 5 by 9.

He would get on the air with the amplifier, interrupting QSOs and generally annoying the local operators. He didn’t sign his call, but identified himself as “The Snowman,” AKA “Frenchy.” After some days of this, the locals went mobile, and found him rather quickly. After a stern warning to cease and desist or face further “consequences,” he obtained his Technician license, and behaved himself from then on. Sometime later, he moved to Saddle Brook, then the Bronx, and ultimately let his license expire.

In those days, and up to the early 1970s, you could call CQ on 2 meter AM almost any time of the day or night and receive an answer from someone. You had to tune the band after calling, though, because almost everyone was crystal controlled, and VFOs were rare and often not very stable on 2 meters.

There were a handful of stations using NFM, who had modified their VFOs by adding a “varactor” diode, or by building an outboard FM modulator. These were almost entirely people living in apartments in the big cities, and the purpose of using NFM was to reduce TV interference to the video carrier, while allowing only the audio portion to be heard. Analog TV stations broadcast the video on AM, and the audio portion on FM. AM signals from 2 meters would interfere with both audio and video. A typical circuit was later published showing a simple way to convert a VFO-controlled AM transmitter to NFM. [4] Here it is:

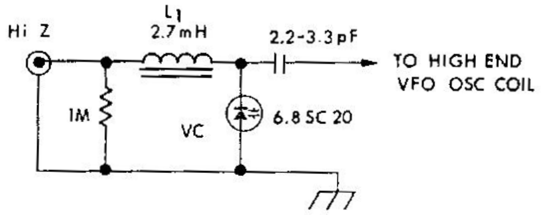


FIG. 1 VARACTOR FREQUENCY-MODULATOR FOR VFO-EQUIPPED AM RIGS.

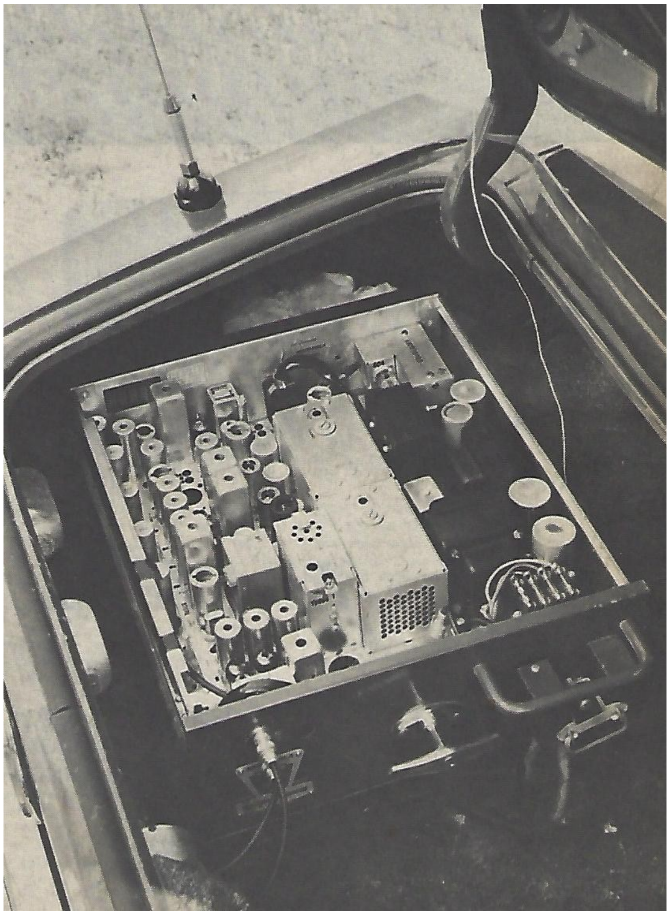
The Way We Were

I remember one ham using NFM in Brooklyn who had his antenna repeatedly sabotaged by neighbors. They finally pulled it down using a grappling hook! He was an old timer, and a long-time resident on 2 meters, but he became so frustrated that he quit ham radio entirely, moved to Staten Island, and later became well known as a "big time" CB'er!

But things began to change in the late 1960s. Here and there, small groups of hams would set up "secret" frequencies using FM, where they could announce where a rare DX station was operating, establish RTTY contacts, or just chit chat among themselves without being interrupted by "breakers" on AM. These small groups used channelized, commercial FM transceivers, converted to operate on frequencies in the 146 to 147 MHz range.

Most of these were mobile rigs, designed for operation between approximately 152 and 159 MHz, complete with external speaker and control head. They were fairly easy to convert — just install appropriate crystals, retune the transmitter, and tweak the receiver. The only real construction work required was building an A.C. power supply if you chose to install the rig in your home. Some of them were a bit more challenging to convert, though. These were designed for "high" split, normally operating from approximately 160 to 174 MHz, which required padding down and re-tuning to get on the 2 meter band.

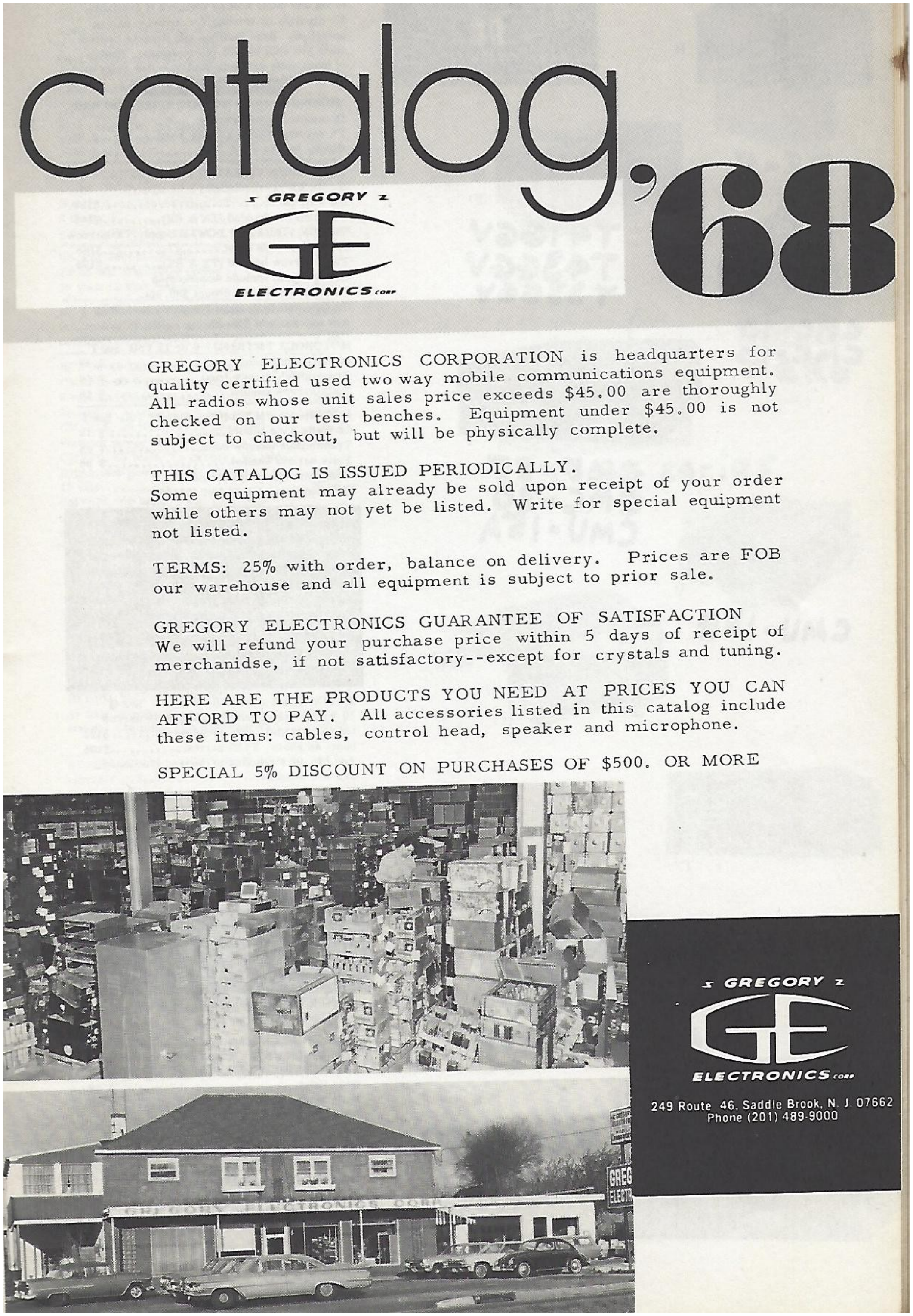
Locally, the earliest ex-commercial FM rigs available for conversion by hams were made by Link. These often dated from the late 1940s. Then, a handful of DuMont rigs became available. Many of these were low band, and easily converted to 10 and 6 meters. Later, Motorola, General Electric, and Federal (ITT) equipment became commonly available, along with a number of others, including RCA, Aerotron, and Comco. The Motorola, G.E., DuMont and RCA units were available for 10, 6, 2, and 440. The Aerotrons and Comcos for 2 meters only.



Typical commercial FM mobile rig
(Image: *FM Magazine*, March, 1968)

The Way We Were

In different parts of the country, there were several dealers in FM equipment. On the west coast, it was Mann Communications. Our main source locally, chiefly for Motorola and G.E., was Gregory Electronics, once located on Route 46 in Saddle Brook. A visit there revealed piles of ex-taxicab, local government or other types of commercial grade equipment. Their ads in various ham magazines brought hams from the tri-state area on a pilgrimage to buy their first FM rig.



catalog,'68

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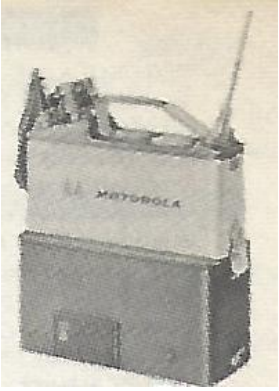
The Way We Were

This equipment would be considered "clunky" by today's standards, built as they were in separate, heavy steel chassis, one for the transmitter, one for the receiver, installed in a heavier steel enclosure, with separate control head, heavy carbon microphone, separate speaker in a heavy steel box, and thick cables connecting all these parts together. The most common Motorola rigs were 80Ds and the somewhat older 140Ds. Later, T43s became popular. The G.E. stuff was Progress Line (commonly called "Prog Line"), and the older series was called "Pre-Prog." Most of these rigs ran 30 to 60 watts output, and were single frequency only.

Even the "portables" were big and clunky back them. The Motorola P-33 was the most common, but then the G.E. "Porta-Mobil" became available. Both of these were about the size of a 3-ring binder, but thicker, and much heavier. Still, they were good rigs, and when available, they were snatched up quickly by the FM community. They used subminiature, instant-heat, wire-pin tubes, the same size as the tiny tubes used first in hearing aids.



Motorola P-33, 5 watt portable
(Image: Gregory Electronics catalog,
FM Magazine, March, 1968)

The first time I ever encountered 2 meter FM operation was about 1967. An uncle of mine, an old time ham, was visiting, and he had a Motorola 80D in his car with only a quarter wave whip antenna on the roof. The rig was equipped with two simplex frequencies, 146.94 and 146.64. Parked on the street outside my house, he fired up on nine-four, just giving his call letters and adding the words, "listening nine-four." He was promptly answered by a station mobile on the Garden State Parkway about 15 miles away. I was impressed by the strength of the signal and the clarity of the audio, and thought, "Gee, this is cool. You don't even have to call CQ, and you don't have to tune the band for an answer." I decided I had to get on 2 meter FM, too. But first I had to find a rig. It would be several years before finding one, though. In the meantime, I read all I could on the subject of amateur FM operation, and monitored the FM frequencies on my AM receiver, to learn who was who, and what was what.

Finally, in 1969, I hooked up with a ham in Ridgewood who seemed to be the "FM guru" in this area. He had built a repeater in his home, and was also a source for FM rigs. After some negotiation, I latched onto an Aerotron 600, which ran about 15 watts output, with one set of crystals (transmit and receive) for 146.94. I then ordered additional crystals for the local repeater frequency and some other local frequencies, and I installed a 5/8 wave ground plane on a mast over the garage roof. Thus began my journey in the strange and wonderful world of 2 meter FM.

The Way We Were

In those days, there were two main sources for crystals to be used in our FM rigs. These were International Crystal and Sentry Manufacturing. You had to order transmit and receive frequency crystals, and specify the type of holder (there are several), the type of transmitter/receiver you were using, to insure that the crystals would oscillate properly, and without improper capacitive loading effects. You also had to specify the crystal's tolerance. The tighter the tolerance, the higher the cost. The crystals were installed in crystal ovens — small, usually round enclosures that plugged into an octal socket in the rig, taking voltage from the rig's power supply to operate the heating elements, and thus insure frequency stability. This was standard commercial practice, and as hams, we still had to follow these same procedures to operate our formerly commercial rigs.

There were only a handful of stations using 10 and 6 meter FM. On 10, the national calling frequency was 29.6, with ragchewing on 29.64. On 6 meters, the national calling frequency was 52.525. I ran a 30 Watt G.E. Pre-Prog on 29.6 to a coaxial "sleeve" antenna. I think I worked only a dozen stations, most of them on sporadic E from the Southwest and Midwest. I never had gear for 52.525, but on the few occasions when I could listen there, either at other people's shacks, or by tuning up there with my 6 meter converter, these efforts disclosed absolutely no activity, except during band openings. No, 2 meters was THE band around here for FM, with 440 second.

Sometime in the mid 1960's, there was a small group operating channelized FM on Long Island on their "private" frequency of 146.58. They always kept their FM rigs on, day and night, and there was a "gentlemen's agreement" among them to never operate later than certain hours of the night. Even hams have to sleep, sometimes.

A certain individual holding an Extra Class license, disliking the idea of a "private frequency," and wishing to shake them up a bit, came on their frequency at 3:00 in the morning, playing a recording of "Reveille," thus rousting the group of "private" frequency users out of their beds and, allegedly, being responsible for at least one divorce proceeding. No one seems to know what became of the interloper, but his act of defiance became legendary. This was the beginning of the era of warfare. There were "frequency wars," and "mode wars" with AMers.

Image: *FM Magazine,* March, 1968

The Way We Were

And so began a conflict, not unlike the friction that developed between AM and SSB on the HF bands. But on 2 meters, the problem started between AM and RTTY stations using AFSK (Audio Frequency Shift Keying). The frequency of 145.70 was a favorite place for RTTY operators to meet, most of them using simple, uncomplicated, rather unselective receivers. Their RTTY equipment was of the "clackety clack" mechanical type, mainly Model 15 teletypes. A few had Model 19s, and one or two were still using a Model 12s. They built their own AFSK terminal units, either from articles in *CQ* or the *RTTY Journal*. I knew one wannabe RTTY hopeful from Fair Lawn who had gotten a Kleinschmidt machine from one of the MARS programs that was bigger than he was, and which, without documentation, he could never get working.

But there was a group formed of youthful amateurs in the local area who set up shop on 145.71 using AM. One of them used a General Class call, although he was only a Novice. Their antics included the use of echo chambers, sound effects, holding belching contests, dirty joke fests, and the playing of music from time to time. Think Pink Floyd, the Grateful Dead, and Frank Zappa.

I had encountered some of these individuals at a hamfest, and they looked as you would imagine that they might — long hair, unwashed, pupils dilated behind pink sunglasses, wearing wildly colored shirts and scruffy jeans. One of them called himself "Freak" (not his real nickname). He was unlicensed, and a drug addict who later died of an overdose.

There was one old timer, an avid RTTY buff from Wyckoff, who frequently sparred with these youngsters, utterly to no avail. The more he asked them to QSY or act civilized, the more outrageous became their responses. One night, in complete despair, the old timer was heard tearfully begging them to stop their nonsense and leave the RTTY frequency alone. They responded by jamming for hours, taking turns dumping AM carriers, making obscene noises, and providing unwanted musical interludes of acid rock.

Eventually, the .71 crowd tired of their games, discovered girls, moved away, or took up more serious pastimes, possibly like throwing Molotov cocktails at police cars. The old timer became a Silent Key, and the new frequency established for AFSK RTTY was 146.70, using FM mode. It's too bad he didn't live to see that.

At first, the new RTTY frequency was abuzz with AFSK signals, and someone built a repeater for their use, with output on 146.70. But it wasn't long before non-RTTY stations began using the "machine," and it evolved into a typical chit-chat operation, driving the RTTY ops away yet again. They ended up on the simplex frequency of 147.51, until they were chased off there, too, by a new repeater group with output on *that* frequency. There was also supposed to be an active group of FM RTTY operators on the 6 meter band, using 52.6 MHz, but I never heard them. Anyway, after all their grief, the RTTY operators apparently disappeared from the 2 meter band. At least, I never heard them again.

The Windblowers VHF Society, an early club devoted mainly to 2 meter operation, set-up with FM gear on a simplex frequency on 147.87. This frequency would also later become occupied by a repeater. The members, which numbered about a dozen, used RCA Carfones and horizontal antennas, until driven off the frequency by the repeater.

The Way We Were

Another club, the Land Rovers, set-up shop on 146.61, and zealously guarded their frequency against intruders. Later, they put up a repeater (W2FCL) with output on this frequency, with PL access, an unusual step to take at the time. Using PL to access repeaters in those days meant it was a “private” or “closed” repeater, and that outsiders were not welcome. This was a “G.E. Machine,” with most members using TPLs or Prog Lines. They were not immune from occasional “incursions” by transient operators, however, and non-members, some of whose intentions were to deliberately disrupt their usually quiet frequency.

One can speculate as to why so much ill will was generated by channelized, single frequency operation on 2 meters. Is it that being confined to one crystal frequency developed a sense of territorial “ownership” that caused others to resent, and then deliberately seek to challenge, by annoying or jamming those on frequency? Or is channelized operation too much like CB, and as such, it brings out the worst in people? The answer may best be answered by a qualified mental health professional.

There was, in those days, a breed of human being known as “Ford men,” “Chevy men,” and “General Motors men,” who preferred one car maker over another. In the world of FM, too, there was a similar phenomenon. Some were confirmed “Motorola men,” others, “G.E. men,” and a few, “Federal men,” each group looking down their noses at the others. I ran an Aerotron rig, which instantly classified me as an outcast, a role which I graciously accepted.

At one time, there was only one 2 meter repeater in New Jersey, operating on 146.34 in, 146.76 out, located at Fords, in the central part of the state. The FCC was still uncertain about the legality of amateur repeaters in those days, and once, while the repeater owner was driving home from work, & his CW identifier came on with his call, he was met by the local FCC Field Engineer, who was already parked in his driveway, waiting for him.

The FCC guy wanted to know who was “controlling emissions” while the repeater owner was away from home. Although the final details have not been established, the repeater owner’s wife, holder of a Technician Class license was at home at the time, so I suppose she qualified as the “control operator.” After a brief hiatus, the repeater returned to the air and remained active without incident.

There was a valiant effort sometime before this, undertaken by the operators at the Stevens Institute of Technology Amateur Radio Club (W2BSC) in Hoboken. A visit from the same FCC Field Engineer was sufficient to terrify them enough to shut down their repeater for good. I was told that in retaliation for this, a couple of guys in the club set up a slide projector on the roof of the Electrical Engineering building and flashed an obscene message about the FCC engineer on the wall of an adjacent building.

In those early days, before repeaters were common, most FM ragchewing took place on 146.94. On Long Island, 146.64 was also set-up as an alternate simplex frequency. Unlike normal amateur radio operating, “Q” signals were not used, in fact, they were positively frowned upon. Instead, “10” signals were the rule. A list of them, used by FM operators in the New York Metro area was created by an anonymous Long Island amateur. Some of the 10-signals on this list differed from those as used by CB’ers. For example, the way to acknowledge a transmission on CB would be the well-known “10-4.” But the FM ham version used 10-3 for this. Nevertheless, the use of any 10-signals on a ham band raised the ire of many old timers, and some newbies too, who equated such behavior with CB. They weren’t far from wrong in this, although the hams were generally better behaved.

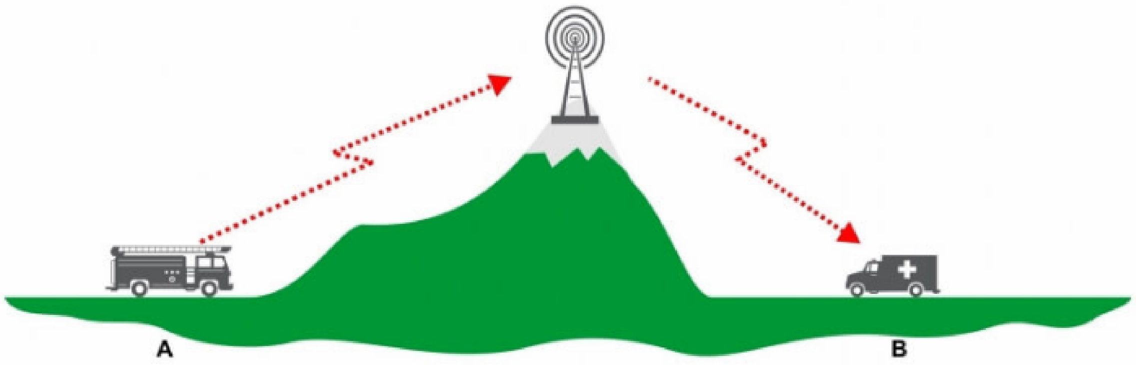
There was one denizen of .94 on Long Island who had been editor of the RTTY column in *CQ Magazine*. He always signed off for the night with his call letters, followed by “10-7.” This was his signature sign-off, and when he had made his farewell for the evening, stations could be heard everywhere from Long Island, New York City, New Jersey, lower New York state and southern Connecticut, each responding with a “Goodnight, Byron,” as he left the air. It was a lighthearted “dig” at the guy which he never seemed to mind.

Except for that one incident of “rousting” previously described that took place on 146.58, the FM crowd was pretty sedate. That was soon to change, and bring about the period of “repeater wars” and general madness that would rage for several years before finally quieting down. As in all wars, there really was no “winner,” only a lot of wreckage and “collateral damage” in the “Post-War” world of 2 meter FM.

END OF PART 1

NEXT MONTH: “Warfare” and “Characters”

73,
Fred, W2AAB



The repeater needs to receive the frequency that the caller transmitted with, and then the repeater re-transmits that same message down to the user on the other side of the mountain. It works similarly to the satellite discussed with VHF radio propagation, but instead of a satellite, it is a fixed radio on top of the hill.

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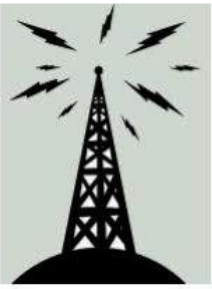
Sunday July 14, 2019 - Noon to 5

---after *the Sussex Hamfest*---



Hey Fair Lawn Amateur Radio Club (FLARC), FRC and friends... You're invited - whether you are going to the Sussex Hamfest or not...

But, if you are going to the Sussex Hamfest, ***you're 3/4 of the way*** to Lori & my home/hamshack at 124 Lakeview Tr., Hemlock Farms, Lords Valley, Blooming Grove Township, PA (Carpool together from the hamfest - save $)

To plan & let the gate know ur coming, YOU MUST **RSVP by MONDAY JULY 8TH**

---Family/Kids Welcome

---We have a large deck and gazebo overlooking the lake

---We have a hot-tub on the deck

---Swimming in the lake and/or outdoor-indoor pools

---Hiking/Fishing (PA license required – 16 and over – available on-line)

---Ham Radio - OF COURSE!

---Bring something to share if you like, not required - let me know so we don't end up with 50# of potato salad!

DIRECTIONS: From Sussex Hamfest - Turn right on Route 206 North, follow Route 206 past Stokes State Forest. Watch for Route 560 on left (doesn't go to right – vacant restaurant on far left corner). Turn left on Route 560 and cross Dingman's Ferry Bridge. Pay the nice man $1 and thank him for letting you use his bridge (no EzPass). After the bridge, Route 560 becomes PA Route 739. Follow it 13 miles. You'll see a traffic light and a Weis Market. Just past the light, turn left into Hemlock Farms, keep right up the hill to the gate. Visitor Gate Keeper will provide a map or WAZE app will bring you right to the house. Or, someone can come get you and lead you in, if necessary.

YOU MUST LET ME KNOW IN ADVANCE WHO AND HOW MANY ARE COMING (FOR FOOD PLANNING) AND WHO THE DRIVER IS, SINCE HIS/HER NAME WILL BE THE ONE REGISTERED. OTHERWISE YOU MAY BE DELAYED AT THE GATE.... LAST MINUTE DECISION? THAT'S OK TOO, YOU MUST LET ME KNOW, AS SOON AS YOU KNOW YOU'RE COMING.

CELL/TEXT 201-207-3346 or PA HOUSE: 570-775-0738 or email vanw2dlt@yahoo.com

July 2019 FLARC Business Meeting

President Brad KM2C called the meeting to order at 7:33 p.m. on 5 July 2019

The members rose and recited the Pledge of Allegiance.

Secretary Randy WU2S called the roll of officers and trustees and all were present. The meeting had a quorum to conduct club business.

President Brad KM2C asked if there were any visitors or new members present. Two new members introduced themselves – Dave KD2SGM who just upgraded to Extra and Eric KD2RHG who participated in our recent tape beam antenna construction project. The members present applauded these new members.

Secretary Randy WU2S announced that the minutes from the June meeting were sent to all members of record and published in the club's newsletter, The Resonator, which is on the club's website at
http://newsletters.FairLawnARC.org
.
He asked the members present if there were any corrections or amendments needed. There were none so Skip KD2BRV moved to accept the minutes as published and John W2JLH seconded the motion. The motion passed by acclamation.

Treasurer Al WA2OWL read this month's Treasurer's Report. He reminded members that we need to keep good controls on our expenses given all the costly upgrades we made in the last year and a half. He said that any future expenses must be authorized by the FLARC Council, so if you have an idea for purchasing something for the club's benefit, submit a request via email to
board@FairLawnARC.org
or contact one of the FLARC officers directly. Judith KC2LTM moved to accept the report as presented and Gene WO2W seconded the motion. The motion passed by acclamation.

Secretary Randy WU2S reported for the Tech Committee that the club's computers have been returned to normal operation after Field Day thanks to Jim W2JC.

Randy reminded members that if they see a problem with any of the computers, contact Jim or Randy immediately and do not change anything on them. Do not install or upgrade any software on the computers.

Randy noted that we still need to install four Ethernet cables to the roof sometime this year. President Brad KM2C suggested that Randy contact Paul W2IP to see if one of the unused coax cables can be removed and replaced with the Ethernet cables. Steve KD2PJK offered to supply a spool of Ethernet cable. Randy asked if the cable was rated for outdoor installation and Steve replied that he would check. Gene WO2W asked if the Tech Committee has any plans for the computer monitors in the basement storage room. Randy replied that we should dispose of these old monitors. Gene asked if we should sell them. President Brad KM2C recommended that we set a price of $10 each and offer them to FLARC members first. Gene agreed to send a list of the monitors to members. Any of these which are not purchased by FLARC members we can sell at the BARA hamfest or auction.

Ed WX2R reported for the Publicity Committee. He thanked all the people who participated in the Fair Lawn Street Fair in Radburn on Sunday June 9. Those volunteers included Judith KC2LTM, Fred W2ABE, Gene WO2W, Nomar NP4H, Jim W2JC, Skip KD2BRV and Thom W2NZ.

Ed WX2R announced that the guest speaker schedule includes:

- July 18 – Allen Katz K2UYH will speak on Getting Started with EME (earth-moon-earth or moon bounce)
- August 16 – Vintage Night at the Fair Lawn Senior Center. Members will discuss and demonstrate classic rigs from the past.
- September 20 – Tim Duffy K3LR will talk to us about his "superstation" in Pennsylvania. Tim is a well-known radiosport contester, the founder and chairman of Contest University (CTU) and the Chief Operating Officer of DX Engineering which sells a wide range of amateur radio equipment and accessories.
- October 16 – Special surprise guest speaker.
- November 15 – George Sabbi KC2GLG will tell us about SKYWARN, the amateur radio weather observation and reporting service.
- December 20 – Ria Jairam N2RJ, ARRL Hudson Division Director.
- January 17, 2020 – Florencia Pierri KD2PHZ, who is the Sarnoff Collection Curator at The College of New Jersey (TCNJ) will speak to us about the early days of radio.
- February 21, 2020 – Ed WX2R will present the results of the annual FLARC membership survey.

Ed WX2R reminds all members to let him know if they have an idea for, or a contact with a unique and entertaining speaker who can do a presentation on a subject related to any aspect of radio communications.

July 2019 FLARC Business Meeting

Vice President Van W2DLT noted that for the September presentation by Tim K3LR we will use Skype and project the session onto the large screen. Van said that he is trying to schedule Tom Perrera W1TP to talk to us next Spring about his collection of World War II Enigma cypher machines.

Jim W2JC reported that he has compiled most of the results from our Field Day effort. He reported that we have 4504 points from 1464 QSOs. Jim is still tallying the bonus points and collecting the needed supporting information. President Brad KM2C mentioned that he was disappointed in our lack of operators during Field Day. He is compiling our lessons learned from this year's efforts so that we can improve next year. Jim W2JC suggested that we do not automatically send QSL cards to all our Field Day contacts in order to reduce our expenses. He said that we will send cards to anyone who sends us a card first. John W2JLH asked members to contact him with any suggestions they have for improving our Field Day operations. Jim W2JC and Karl W2KBF pointed out that we need to make more efforts to get young people under 18 years old to participate in our Get on the Air (GOTA) station.

Thom W2NZ reported that we acquired 11 new subscribers to our YouTube channel in the past month. We have 287 subscribers at this time. Thom asked for volunteers to help him test Skype for use at our forthcoming guest speaker presentation at the Senior Center. Steve KD2PJK and Gene WO2W volunteered to assist Thom.

President Brad KM2C reminded members that the club is open on Thursday evenings for CW practice with Fred W2AAB and George K3EH. Members can also use the club rooms for operating or construction.

Brian KD2KLN announced that the Monday night net is running well and needs volunteers to act as the net control station on July 22 and for all the sessions in August. Please contact Brian to volunteer.
[techrat@obsolyte.com]

Secretary Randy WU2S announced that the FLARC Council has reviewed a set of proposed amendments to the FLARC By-laws. They are presented here in full. Members will have several months to discuss them. We will vote on these amendments during our December business meeting and if accepted they will take effect then.

The proposed amendments are:

It is proposed to amend the FLARC Bylaws
Section 7.2 Annual Dues
Paragraph 5 Associate Members: Eligibility
from:
5. Associate Membership: Eligibility
Applicants for Associate Membership shall be open exclusively to Fair Lawn residents with an interest in the purpose of the organization, bearing proof of residency. Associate Members shall not be entitled to voting rights or any other rights of full membership. No annual dues shall be imposed.

To:
5. Associate Membership: Eligibility
Applicants for Associate Membership shall be open exclusively to Fair Lawn residents with an interest in the purpose of the organization, bearing proof of residency. Associate Members shall not be entitled to voting rights or any other rights of full membership. No annual dues shall be imposed. Associate members may not hold any elected or appointed leadership positions. Associate members may not borrow club equipment or supplies. Associate members may operate club equipment only under the direct supervision of a full member in good standing.

It is proposed to amend the FLARC Bylaws
Section 2.4 Nomination of Committees
from:
Section 2.4 Nomination of Committees
In the month of October of each calendar year, the Council shall appoint a nominating committee consisting of two (2) Trustees of the Association. The nominating committee will present its recommendation for the slate of Officers at the November business meeting. After the nominating committee has presented its recommendation, floor nominations will be accepted. Only voting members in good standing will be accepted for nomination.

To:
Section 2.4 Nominating Committee
In the month of September of each calendar year, the Council shall appoint a nominating committee consisting of the two (2) Trustees of the Association whose term is not expiring at the end of the current year. The nominating committee will present its recommendation for the slate of Officers at the October business meeting. After the nominating committee has presented its recommendation, floor nominations will be accepted at this meeting and floor nominations will be accepted at the November business meeting. Only voting members in good standing will be accepted for nomination.

Continued on next page.

July 2019 FLARC Business Meeting

It is proposed to amend the FLARC Bylaws
Section 2.5 Management of Association Property
from:
Section 2.5 Management of Association Property
Property of the Association may be acquired, used or disposed of in accordance with the direction of the Council. The Council shall not incur any debt or liability or any combination of debts or liabilities, exceeding 25% of the net assets of the Association without a majority voice vote of members present at any business meeting. No debt or liability, or any combination of debts or liabilities shall be incurred or maintained by the Association that exceeds its assets at any time.

To:
Section 2.5 Management of Association Property
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Section 2.5.1 Quartermaster
The Council may appoint a club Quartermaster who will oversee asset management.

The duties of the Quartermaster are:

- Be responsible for club property and keep accurate records of being checked out/in of the club
- Shall report missing, damaged, unreturned equipment to the board
- Keep maintenance records and schedules on serviceable equipment in club room
- Keep maintenance records and schedules for equipment on club's exterior to include antennas, rotators, cables, towers.

The term for the Quartermaster shall be two (2) years.

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Secretary Randy WU2S announced we will conduct a Ham Radio for Kids Day on Saturday, July 27 in Elizabeth, NJ in cooperation with the Tri-County Repeater Association (TCRA).

The event will run from 11:00 am to 3:00 pm at the Union County Office of Cultural and Heritage Affairs, 633 Pearl Street, Elizabeth, NJ.

We plan to arrive at the site at 9:00 am and set up the antennas, canopies, radio stations, and publicity and Morse code booths. The families will begin arriving at 11:00 am. The site has a large open grassy area adjacent to the Elizabeth River and conveniently located tall trees suitable for the temporary installation of wire antennas.

There is ample street parking and off-street parking in the high school lot across the street to the East of the site.

This event will be like our very successful activities at Paterson Great Falls National Park in support of Earth Day. It is intended to introduce various aspects of amateur radio to local families and their children. We want to present ham radio as a family activity that complements STEM education, provides opportunities for community service and enriches one's understanding of cultures, geography and history.

Randy WU2S is organizing this event and will transport all the heavy gear that we need. Please contact Randy via email to randy@wu2s.com or phone 201-264-5839 to volunteer and make this a positive experience for some potential new hams.

President Brad KM2C announced that the Flex gift certificate from Judith KC2LTM and Fred W2ABE will be used to obtain a control knob for station #1 and a desk microphone for station #4. The members present applauded this generous gift from Judith and Fred.

President Brad KM2C said that he received a letter from James Graff, the Superintendent of Recreation and Parks for Fair Lawn, thanking FLARC for providing communications support for the annual fireworks display. Brad read the letter to the members present.

Gene WO2W asked if we had sent a note thanking the Village of Ridgewood for the use of its inflatable shelter during Field Day. A discussion ensued between Secretary Randy and Judith KC2LTM. It was agreed that Judith will send a suitable thank you note.

President Brad KM2C asked if the two-meter tape measure beam antenna project is continuing. Karl W2KBF replied that he and Randy WU2S have concluded the project. He noted that Eric KD2RHG is working on a variant of this antenna which adds a 70-centimeter beam so that it could be used for satellite communications.

Vice President Van W2DLT said that the Sussex Hamfest is on Sunday July 14. He said that he is inviting FLARC members to his fourth annual Vanfest at his home in Lords Valley, PA following the Sussex hamfest from 12 noon to 5:00 pm. If you plan to visit Van, please contact him to confirm your attendance before July 14 so that he can let the gate guard know you will be coming. [vantslotl@gmail.com]

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July 2019 FLARC Business Meeting

Van reminded everyone that if you go to the Sussex Hamfest you are already about 2/3 of the way to his QTH.

He reminds everyone to have some cash on hand to pay the bridge toll at Dingman's Ferry because this private bridge only accepts one dollar in cash for crossing it.

Karl W2KBF asked if there is any interest in holding a fox hunt at Vanfest and many members said that they would like this idea.

President Brad KM2C said that he would consider doing another soldering course if enough members indicated their interest. Please email Brad to let him know your opinion. [bkerber@optonline.net]

President Brad KM2C reminded all members that they shall not discuss matters of religion or of political nature while in the club room or at club sponsored events. Keep discussions related to amateur radio topics.

David KD2MOB said that Fair Lawn ARES thanks FLARC for use of the W2NPT repeater for its weekly ARES nets.

He announced that Fair Lawn ARES is starting a monthly video training session on the third Wednesday of the month. The first session will be on July 17 at 7:00 pm.

Randy WU2S reports that any interested radio amateur, not just ARES members, may login to the session on Zoom at

https://zoom.us/j/520990723

Steve WA2BYX asked if our radios can operate on the new Bergen County RACES repeater. Secretary Randy WU2S replied that Paul W2IP had programmed the radio at position #5 to connect to the BC-RACES repeater with its unusual 1 MHz offset.

Jim W2JC mentioned that all hams automatically get a web page created for them on QRZ.com. The web page and site registration are free. Jim suggested that hams use this free page to display their interests and activities.

Having no further business, President Brad KM2C asked for a motion to adjourn. John W2JLH so moved and Gene WO2W seconded the motion. The members present voted in favor and the meeting was adjourned at 8:27 p.m.

Respectfully submitted,

Randy WU2S,

Secretary

Theoretics Demystified (Continued)

When we look at a chart of the electromagnetic spectrum, we find that light is much higher in frequency than radio waves. Our eyes see light but radio waves are seen by wire antennas and for microwaves, wave guides. As said before as frequency changes, the characteristics of propagation and detection change. That is why the types and sizes of antennas change as you go to different area of the electromagnetic spectrum. To be efficiently transmitted and received the antenna must match the size or wave length of the energy involved. That is, they must be tuned to the frequency involved. This has always been done in the past by a combination of inductors (coils) and capacitors. This combination of values of each were calculated to be resonant or 'very friendly' to the frequency involved.

Remember the filling of the water pitcher and the sound how it changed as it filled up? The same cavity resonance is used especially in 2 meter repeaters to fine-tune the transmit and receive frequencies so that they do not interfere with each other.

There is much more but you can do further research yourself. That is the discovery aspect of ham radio.

73, Fred Wawra, W2ABE.

Radburn Street Fair A Success

FLARC once again participated in this annual event with perfect weather and a nice turnout of volunteers. It's always a good chance to shake hands and talk ham radio with those who would like to know more or are just curious.

A big thanks to Fred W2ABE and Judith KC2LTM for taking charge of the event this year and also to our many volunteers including Larry WA2ALY, Jim W2JC, Thom W2NZ, Skip KD2BRV, Nomar NP4H and ...

Thanks to all!!

Ed
WX2R